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ABSTRACT

The purpose of this study was to collect the necessary descriptive information which would enable educators to determine the extent to which the Duluth individualized-contract program was successful in implementing the individualization of instruction concept. Data was collected on students in fifth and sixth grades, both from the experimental program and from a more conventional program. Findings suggest that students from a middle socioeconomic background who were enrolled in the individualized-contract form of classroom organization attained expected levels of academic achievement. There were numerous indications that students in the individualized program were acquiring less positive attitudes about learning, school, fellow classmates, and themselves. The teachers in the program were generally positive in their responses to the program. The survey identified areas where the program was not accomplishing its objectives, as well as insight into teachers' feelings concerning administrators' expectations. (Author/KJ)

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AN EVALUATION OF A DEPARTMENTALIZED FORM AND OF AN INDIVIDUALIZED FORM OF ELEMENTARY CLASSROOM ORGANIZATION FOR PUPILS IN GRADES FIVE AND SIX

FINAL REPORT
Project No. 7-8382

March, 1969

Vernon L. Simula
University of Minnesota, Duluth

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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PREFACE

The goal of this undertaking was to describe two, complex social processes herein identified as two types of elementary classroom organization. Yet, it must be recognized that any attempt at description is a hazardous endeavor. The reader, then, must anticipate that some discrepancy will unavoidably exist between what those processes were in reality and what appears herein as a graphic record of those processes.

Such discrepancies are, in part, a function of the perception processes of the observer and the abstraction processes of the language with which the observer attempts to record his data. It is within such a rationale that the author assumes the responsibility for the inaccuracies which may appear in this report.

The author wishes to express his gratitude to the following persons for their various contributions to the project:

The teachers and students in the two elementary schools, particularly the principals, Miss Mary Brown and Mr. Frank Bradshaw, for their participation in data collection;

Dr. L. V. Rasmussen, Superintendent, Mr. Thorwald Esbensen, and Dr. Richard Weatherman, of the Duluth Public Schools, for their assistance with the design of the study;

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CHAPTER I

PROBLEM

The obligation to individualize instruction has long been a major challenge to the professional educator. Ever since the onset of the graded structure of the American elementary school, educators have been attempting various ways to meet this obligation. In the past, these attempts have largely been limited to the creativeness of some individual teachers who have attempted to individualize through the use of various grouping techniques and, to some extent, the use of multi-level materials.

More recently, the highly improved economic climate of education, the abrupt surge in the availability of instructional materials, as well as a greater flexibility of school building design have permitted greater experimentation with methods designed for individualized instruction. In that such modification of classroom organization is receiving impetus from many quarters, it seems imperative that these experimental plans be carefully evaluated to ensure that curricular outcomes are indeed consonant with the goals of elementary education.

In the fall of 1964, the Duluth (Minnesota) Public Schools initiated a program which sought to develop an instructional scheme which would permit teachers to realize their goal of individualizing instruction according to the needs and abilities of children. After one year of initial development, an evaluation of that instructional scheme was undertaken. The evaluation was designed to make a two-year longitudinal assessment of two groups of children as they, respectively, proceeded either through an individualized form of classroom organization or through a more conventional, departmentalized form of classroom organization.

General Purpose

The two purposes of this investigation were:

1) to assess selected types of cognitive and affective behaviorial changes exhibited by two groups of intermediate grade students as each group proceeded through a different type of classroom organization during their fifth and sixth grade years, and
2) to examine a) the attitudes and opinions of the teachers involved in an experimental-type of individualized instruction concept, as implemented, and b) selected problems pertaining to the changing of a teacher's role function.

While the importance of academic achievement should certainly not be minimized, it was felt that other changes were also occuring that also needed assessment in order to properly evaluate the relative strengths and weaknesses of each type of program. An effort, therefore, was made to measure certain affective, as well as cognitive, types of changes.

Specific Purposes

The specific purposes of this investigation included:

1. To determine for each group of students the changes which

occurred in the academic areas of reading vocabulary, reading comprehension, language skills, work-study skills, and arithmetic skills during the two year period.

2. To determine for each group of students the changes which occurred in the affective behavior areas of academic self concept, liking for school activities, liking for peers, dependence proneness, and locus of control during the two year period.

3. To investigate the null hypotheses that there were no significant statistical differences between the performances of the two groups at and across specific time intervals on selected measures of cognitive and affective behavioral changes.

4. To examine the attitudes and opinions of the teachers involved in the programs in respect:

(a) to the extent to which the teachers felt that the respective programs were fulfilling their educational objectives,

(b) to the manner in which the teachers in the respective programs envisioned the suitability of the methods and procedures utilized,

(c) to the manner in which the classroom teachers perceived the problems involved in changes and transition from a conventional to an unconventional form of classroom organization.

Definition of Terms

Within the context of this study, the use of the following terminology was delimited to the denotations given below:

1. Classroom organization. This term refers to a classroom management system which prescribes the manner in which students are managed and instruction is communicated.

2. Self-contained classroom organization. This term refers to the management system where one teacher has full responsibility for managing the behavior of one classroom unit of 25-35 students and where that same teacher is charged with the responsibility of conducting instruction in five or more subject areas of the curriculum to students who comprise a single classroom group.
3. Departmentalized classroom organization. This term refers to the management system where one teacher has full responsibility for managing the behavior of one classroom unit of 25-35 students for an allotted portion of the school day and where the same teacher is charged with the responsibility for conducting instruction in one, two, or three areas of the curriculum to three separate classroom units of students at the same grade level. The responsibilities of student management and of conducting instruction for these classroom units of students are shared among three teachers at the same grade level--each of whom are designated to be in charge of certain subjects within the fifth or sixth grade curriculums. For example, one teacher may be in charge of language arts and music, another with math and science, and the third with social studies, art, and physical education. (See Chapter III, Methodology, for further amplification.)
4. Individualized-contract classroom organization. This term refers to the management system where a unit of 25-35

students function individually about 75% of the time, in small groups of two to ten students about 15% of the time, and in large groups about 10% of the time. While the management of these students along with three other pupil-units of similar size is the joint responsibility of a team of four teachers, it is only for the latter 10 percent of the time that a teacher would have the responsibility for the group-type management of one or more classroom size units of students. Similarly, instruction is typically conducted by means of a written "contract" which prescribes the learning task for the child. (See Chapter III, Methodology, for further amplification.)

5. The contract. While the concept of individualized instruction has been implemented in many different ways, the essence of individualized instruction as considered within the program evaluated by this study is represented by the "contract." A "contract" is a written statement which describes 1) a specific purpose of the learning task as an instructional objective stated in behavioral terms, 2) the criterion of performance required for assumed mastery of the instructional objective, 3) instructional procedures which suggest to the student the resources by which he can accomplish the objective, and 4) a statement of taxonomy which describes the type of learning outcome. In addition, an integral part of the "individualized-contract" concept is an evaluation step which requires the student to pass a mastery test before proceeding to the next

contract. By means of the contract, students can pace themselves individually as they undertake a common set of instructional objectives which have been designed for their particular grade level. (See Chapter III, Methodology, for further discussion of procedures. See Appendix E for samples of contracts.)

Limitations

Any interpretations of the findings reported in this study must acknowledge the following limitations:

1. The instruments which were available for the assessment of affective variables, although demonstrably valid, have definite limitations pertaining to their stability and discrimination. This presents a major limitation when the measurement of change on affective variables is attempted.
2. The characteristics of both treatment conditions, the individualized and the departmentalized form of organization, have been carefully and thoroughly documented in the discussion of the methodology. However, it must be acknowledged that maintaining the desired stability of these characteristics to the satisfaction of experimental rigor was not possible. Although even at the end of the evaluation period, the two treatments were distinctly different, there was an observed tendency for some contamination of methods which resulted in some regression toward a common instructional procedure.

CHAPTER II

RELATED LITERATURE

Perhaps the principal instructional dilemma which teachers face is defined by the two "stubborn" facts of educational reality: 1) that optimal learning rates can be achieved only when the nature and the difficulty of the learning content is appropriate to the abilities, needs, and interests of the individual child and 2) that in any classroom group there exists a formidable range of inter-student differences in regard to abilities, needs, and interests.

In order to resolve this instructional dilemma, teachers have attempted various types of classroom organization in order to provide for the individual differences. In actual practice, such attempts have been typically limited to variations of large and small group procedures. Investigations of such procedures have pertained to comparisons of heterogenous and homogenous grouping plans (e.g., Bicak, 1964) or to comparisons between self-contained and departmental types of classroom organization (e.g., Gibb and Matala, 1962; Lambert, et. al., 1964).

While there apparently has been some experimentation with organizing classrooms for individualized instruction, there exist relatively few reports of research in the literature which describe formal evaluations of such programs. The literature is characterized by reports which describe attempts to individualize instruction by specific subject matter areas, particularly in reading, (e.g., Aronow, 1961), in arithmetic (e.g., Sanga, 1960), in spelling (e.g., Eisman, 1962), and in the use of programmed materials (e.g., Frye, 1962).

Other investigations have examined other aspects of classroom conditions and/or learner characteristics which affect the learning behavior of children. Sears (1963) has examined such variables as 1) self concept, 2) attitude toward peers, 3) classroom behavior, 4) academic achievement, 5) attitude toward school activity and 6) creativity. Flanders (1963) has investigated the effects of "dependence proneness" of children as it may effect learning behavior. Brookerover (1962) and Spaulding (1963) have also examined the effects of self concept on academic achievement.

In each of the studies cited in the preceding paragraph, while certain affective variables were found to be significantly related in varying degree to academic achievement, each of the investigations were conducted within a single type of classroom organization. There is little information available regarding the differential effects of various types of learning environments (i.e., classroom organization) upon these affective variables.

Moreover, few studies have investigated the aspect of change in such affective variables produced as a result of varying the type of learning environment (that is, using an affective variable as a dependent variable). The dearth of such studies is perhaps accountable when the status of available instruments and appropriate analysis methods are taken into account. Recent work in instrument development (e.g., Sears, 1963; Spaulding, 1963; Bialer, 1961; Flanders, 1961) and in statistical methodology (e.g., Harris, 1963) now permit initial, though crude, inquiry into the measurement of change which may occur in affective type of variables among elementary age children.

Attempts to assess various attitudinal variables with instruments of this type have been recently reported by Dethmers (1968) and Alschuler and Ham (1969). Moreover, both of these studies were evaluations of certain aspects of the Duluth individualized instructional programs.

Dethmers examined the variables of self concept, value orientation and academic achievement between 1) an individualized (contract) program and 2) a traditional, self-contained program which were attended by fifth and sixth grade children from economically distressed districts. Dethmers found that students in the traditional, self-contained classroom achieved significantly higher scores on measures of academic achievement and self concept than did the students in the individualized instructional program. There were no observed differences on the locus of control measure.

Alschuler and Ham reported their findings of a study which involved a two-year comparison of an individualized program and of a traditional program at the junior high school level. During the first year of the comparisons, no significant differences were found between groups on measures of need-for-achievement or need-for-affiliation. The junior high students in the individualized program were significantly lower on measures of need-for-power and academic achievement.

During the second year of the program, the differences observed previously between programs on measures of need-for-power and academic achievement no longer existed. Other attitudinal measures, however, revealed that boys in the individualized program reported "significantly greater need to avoid failure in achievement-oriented situations (higher debilitating test anxiety) and significantly lower self-esteem." (p. 37). Similarly, these researchers reported that girls in the individualized program were significantly lower on measures of need-for-achievement than the girls in the traditional junior high school program.

CHAPTER III

METHODOLOGY

This evaluation involved two separate phases--one phase involved an assessment of cognitive and affective changes which occurred in students and the other phase involved a survey of teacher attitudes and opinions regarding curriculum innovations involving individual instruction schemes.

The methodology followed in conducting a survey of teacher attitudes and opinions about the individualized instruction approach involved securing responses on the 78 item questionnaire from each of the sixteen elementary teachers in the Duluth school system who were identified with an individualized instruction curriculum project. The percent of agreement and disagreement on each item was computed and a chi-square analysis was conducted to identify those items where the proportion of agreement to disagreement was statistically significant.

The methodology which was used in the evaluation of selected pupil behaviors in the two forms of classroom organization will be described in terms of 1) pupil characteristics, 2) the treatment conditions, 3) instrumentation, 4) design, and 5) statistical analysis.

Pupil Characteristics

The selection of students for the experimental, individualized-contract program was a function of an administrative decision made by the school officials to implement the experimental program within a certain elementary school building. Thus, the subjects in the experimental group of this study included all those fourth grade children who resided within the attendance district of that elementary school building during the 1965-1966 school year. The attendance district was characterized by families of the middle-middle and upper-middle socioeconomic levels as described by the Warner Index of Socioeconomic Characteristics.

In order to control for the influence of the socio-economic factors upon cognitive and affective change measurements, a second school attendance district was selected which was also characterized by similar socio-economic levels. The attendance district was nearby but not adjacent to the district in which the experimental program was located. The subjects designated for the control group were all students who were enrolled in the fourth grade sections of the school building serving this attendance district during the 1965-1966 school year.

Because of a certain degree of mobility of the families in these districts, only the students for whom complete data was available for grades four, five, and six were retained for this study. As a result, the experimental group contained 53 students and the control group contained 78 students.

Preliminary analysis of the pre-treatment data pertaining to achievement test scores and intelligence test scores indicated that statistically significant differences existed between the mean scores of boys and girls within each of the two schools. Table 1 illustrates that the means of IQ scores for boys in the two groups were 109.82 and 113.41, respectively, and that the mean IQ scores for girls in the two groups were 115.35 and 118.21, respectively.

Table 1

Mean Values of Lorge-Thorndike Intelligence Test Scores for Boys and Girls in the Experimental and Control Conditions

SEX	CONDITION	N	MEAN IQ
Boys	Experimental	28	109.82
Boys	Control	29	113.41
Girls	Experimental	23	115.35
Girls	Control	47	118.21

A two way analysis of variance, Table 2, revealed that the differences in IQ scores between sexes were significant at the .05 level of probability.

Table 2

A Two-Way Analysis (Sex by School) of Lorge-Thorndike Intelligence Test Scores for Subjects in Grade Five

SOURCE OF VARIANCE	df	SS	MS	F
Between Sexes	1	26.65	26.65	5.58*
Between Schools	1	10.42	10.42	2.18
Interaction	1	.13	.13	.03
Within Groups	123		4.78	

*$p < .05$

Similarly, Table 3 indicates the means for the composite scores on the Iowa Test of Basic Skills for boys were 53.11 and 55.19, respectively, and that the means for the Iowa Test of Basic Skills composite scores for girls were 58.08 and 59.37, respectively.

Table 3

Mean Scores on Iowa Test of Basic Skills for Boys and for Girls in the Experimental and Control Conditions

SEX	CONDITION	N	MEAN
Boys	Experimental	28	53.11
Boys	Control	31	55.19
Girls	Experimental	24	58.08
Girls	Control	41	59.37

A two-way analysis of variance, Table 4, reveals that the pretreatment differences in ITBS achievement scores between sexes were significant at the .01 level of probability.

Table 4

A Two-Way Analysis (Sex by School) of Iowa Test of Basic Skills Composite Achivement Scores for Subjects in Grade Four

Source of Variance	df	SS	MS	F
Between Sexes	1	20.92	20.92	7.80**
Between Schools	1	2.84	2.84	1.05
Interaction	1	.16	.16	.06
Within Groups	120		2.68	

$^{**}p < .01$

These findings suggested that the boys and girls within each of the two schools represented distinctly different populations. Thus, because of these differences, a design was selected which examined the achievement and affective measures separately for boys and for girls.

A further inspection of Tables 1 and 2, supplemented by the one way analysis conducted by sexes separately on achievement test scores as reported in Tables B-1 and B-2 in Appendix B, reveal that no statistically significant differences existed on measures of intelligence or academic achievement scores between the two groups of boys in the two treatment conditions or between groups of girls in the two treatment conditions. This finding suggested that further control of pre-treatment differences on intelligence scores or on academic achievement scores were not necessary for the purposes of this investigation.

In respect to the design of the study, it must be noted that the students in both groups had attended self-contained types of classrooms during their previous five years of school (kindergarten through Grade 4). Thus, it was assumed that the type of classroom procedure and the type of teacher-pupil relationship (in the organizational sense) had not been significantly different for the children in the two groups prior to the evaluation period.

Treatment Conditions

A thorough description of the two treatment conditions was especially important in an investigation of this type. Prior to the study, careful documentation of the characteristics of each treatment condition was undertaken by means of 1) extensive, on-site observation of all classrooms involved, 2) examination of curriculum guides, texts, and other instructional materials, and 3) interviews with the classroom teachers and principals within the buildings involved. The following descriptions of the two treatment conditions encompass 1) the physical characteristics, 2) instructional characteristics, and 3) the learner characteristics.

1. Experimental Condition
The Individualized-Contract Plan of Classroom Organization

a) Experimental Condition: Physical Characteristics

(1) The classrooms, individually, were of ordinary size (25' x 30'). They were adjoined in pairs and partioned only by a folding partion which was seldom closed. Consequently, the physical classroom was usually doubled in size and contained two groups of students who were usually working at different instructional tasks. The structure which housed this program was a four year old one-story addition which had been added to an older, two-story, brick school building.

(2) The students were seated at individual, movable desks which were arranged in varying fashions. Some desks were in rows, others were in square or oval patterns with the desk edges of one student adjoining the desk of the next student. Other arrangements included clusters of six or eight desks in table-type arrangements.

(3) Students faced in various directions because of the seating arrangements.

(4) There was no definable "front" of the room. The teacher walked among the desks to work with students individually. The teacher had an office which was adjacent to the classroom to which students went when they wished to confer with the teacher.

(5) A chalkboard was usually on one wall of the room which the teacher utilized extensively. Other pieces of audio-visual equipment, such as film-strip projector, overhead projector, tape recorder, record player, and television set were also available within the "duplex" room. The children typically operated the equipment. Each room contained sinks, a water supply and electrical outlets.

(6) Bulletin boards were usually found on at least two walls of the room. These display areas contained either 1) pictures or other resource materials which the teacher had mounted and/or 2) pictures. drawings, or other art projects which the students had prepared. The rooms varied in the amount of materials displayed.

(7) Some rooms also contained displays of various types of realia; e.g., rock collections, which had been placed in on tables or counters for children to view.

(8) The children spent approximately one hour and forty minutes per day in each of four subject area rooms. At the end of each period, the students moved to a different room for a different set of subjects. The grouping of the subject areas were determined by the strengths and interests of the teachers involved. The fifth grade individualized-contract teaching areas included 1) language arts, 2) science and physical education, 3) social studies and music, 4) mathematics and art.

b) Experimental Condition: Instructional Characteristics

(1) The teaching staff for the two classroom grou s of students in the experimental treatment consisted of four teachers, two men and two women, who were each responsible for one or two subject matter areas. These teachers worked in a departmental-type arrangmenet serving two sections of fifth grades and two sections of sixth grades.

(2) The most distinguishing characteristic of the individualized-contract form of organization was the manner in which students were presented or assigned study material. The subject-area teacher prepared a dittoed "contract" for the student which directed the student to perform usually from six to twelve tasks before he was permitted to take a test over the material covered by that particular contract. The work in the contract was primarily based upon the material that was contained in the textbooks that were normally used in the city's elementary school curriculum. The contracts often required the student to consult sources other than the textbook for information--such as a film, a film strip, a tape, etc. (See Appendix E.)

(3) The subject-area teacher was soley responsible for the planning and the evaluation of the material presented. He was not responsible, in conventional terms, for the presentation or the pacing of the instruction.

(4) The subject-area teacher, in preparing the contracts, relied most extensively upon existing, commercially published text books and achievement test objectives for the selection of concepts or skills to be taught.

(5) The subject-area teacher maintained a record of each student's progress of completed contracts. The teacher conferred with each student at the completion of each contract. The teacher then assigned the next contract and usually, personally, handed the succeeding contract to the student. This teacher-student conference usually occurred in the teachers' office which was adjacent to the classrooms.

(6) The classroom teacher was assisted by a student teacher who was enrolled in a practicum at a nearby teacher training institution. The role of the student teacher consisted mainly of circulating among the students to help them with their individual study problems. The role of the "regular" teacher included, in addition to working with individual students, constructing contracts, evaluating student progress, and recording student progress.

(7) The teachers and student teachers attended staff meetings approximately once per week in order to compare the progress and achievement of each student in each of the subject matter areas.

(8) The classroom teacher typically dealt with individual students or with small groups of students. Such individual or group conferences were initiated by either the teacher or the students. The teacher conveyed orally to the students:

(1) the requirements of the assignment,
(2) the explanation of the concepts of skills being studied,
(3) the questions for the purpose of recitation or discussion,
(4) the commands or requests necessary for classroom control

(9) Because of the emphasis on individualized study, relatively little teacher-led classroom-type discussion occurred--either about the content that was being studied or about topics which were of current interest to the students. A half hour period at the beginning of each morning was designed for this purpose but this was typically somewhat formal, teacher-directed, and often was for the expressed purpose of making announcements and discussing the important world, state, and local news of the day.

(10) Because of the individualized scheme of instruction, little provision was made for group discussions which were designed to develop motivation for the study of a particular topic.

(11) The classroom teacher seldom addressed the entire class of students. Instead, he talked with students individually or in small groups of two or three students about their study problems. The student, as frequently as the teacher, initiated the communication.

(12) Within this program, the means of communication between the teacher and the student was largely by use of a written, dittoed "contract" and a written student response based upon questions contained in the written contract. These means were supplemented by individual oral discussions between teacher and student and between student and student.

(13) Even in this plan of organization, the teacher still played a major role in the motivation of students through the mechanism of social reinforcement. In that the opportunity for motivating discussions was limited, the principal source of motivation for the student arose from the expectation of the teacher that the student complete a certain number of contracts in a specified amount of time. The time requirements were individualized and varied from student to student. Sometimes, the motivation technique took the form of arousing interest on the part of the child; at other times the motivation also took the form of fear of disapproval, etc. The extent and type of motivational techniques which each of the teachers used varied considerably.

(14) In most subject-areas, a single level text book was typically used, i.e., at the fifth grade level, the work for a social studies contract was based upon a fifth grade social studies text. However, in addition to the subject-area text, extensive use was made of other informational resources, e.g., the encyclopedia, programed materials, tapes, film strips, and film.

(15) In the area of language arts and reading, various types of "kit" materials were used which were multi-level in nature. An extensive supply of paper back and trade books were also available to the students.

(16) The subject-area teacher was seldom the only adult within the classroom. A full time student teacher was assigned to each group of students. The subject-area teachers from the other areas moved freely in and out of the classroom. Because of the innovational aspect of this program, a large number of visitors were frequently in the rooms while instruction was taking place.

(17) The subject-area teacher utilized group comparisons as the principal criterion for evaluation and in the assignment of letter grades for report card purposes. Little provision was made for the student's individual effort and individual growth.

(18) The subject-area teacher also considered the criteria of neatness, orderliness, cooperativeness, interest, expressed interest, and promptness to be of major importance in the evaluation of student performance.

c) Experimental Conditions: Learner Characteristics

(1) The student acquired or modified his previously acquired information principally by reading the material that had been specified by the contract and by conversing informally with his classmates. Within this program, the student had considerable opportunity to discuss his work with other students and, in addition, to work jointly with another student on a portion of the contract.

(2) Within the classroom setting, the student acquired, or modified, his attitudes principally through the model presented by the teacher and by his relatively extensive interaction with fellow classmates.

(3) Within the classroom setting, the student conversed principally with the student who was sitting at the next desk. Purposeful conversation was permitted and, in fact, encouraged. As a consequence, the classroom environment was characterized by a continual, low din of conversation.

Students were occasionally reminded that the noise level of their talking was too high and they were asked to lower their voices. Generally, however, a business-like atmosphere prevailed. In fact, classroom control was noticeably a minor concern of the teacher.

(4) The student's cognitive learning was almost predominantly structured by questions or problems developed by the classroom teacher and conveyed to the student by means of the written contract. Most questions involved factual-level type of answers. Nearly always, the conditions of the problem were such that one and only one answer was entertained as being the correct one. Seldom did the student have the opportunity to review the steps which led him to an unacceptable although not necessarily incorrect answer. A few questions did involve the use of generalizations.

(5) Some students received considerable social reinforcement for their learning--and other appropriate behavior--in the form of praise and approval from the classroom teacher. Others received relatively little.

(6) Some students formed a close, personal attachment with the classroom teacher. Others found it difficult to relate to the teacher on a personal basis.

(7) Students varied in the intellectual potential for academic success.

(8) Students varied in their motivation for academic achievement.

(9) Students varied in their intrinsic interest of the various topics studied in the curriculum.

(10) Students had limited opportunity to choose and pursue an area of study in which they were personally interested.

.2. Control Condition
The Departmentalized Classroom Organization

a) Control Condition: Physical Characteristics

(1) The classrooms were of ordinary size (25' x 30') and appearance, and were located in a two story, brick building that was built in 1901.

(2) Students were seated at individual, movable desks which were arranged in rows of six or seven desks each.

(3) All students faced the front of the classroom. In one fifth grade room, the desks were arranged in groups of six to provide a rectangular table type of arrangement.

(4) The teacher usually stood at the front of the room as he instructed. During study times, he walked among the rows to work individually with students.

(5) A chalkboard was usually at the front of the room which the teacher utilized extensively. Other pieces of audio-visual equipment, such as a filmstrip projector, overhead projector, tape recorded, record player, and television set, were usually secured from a central storage area which was available for use on a shared basis among all the teachers in the building. The teacher, rather than the children, typically operated the equipment.

(6) Bulletin boards were usually found on at least two walls of the room. These display areas contained either 1) pictures or other resource materials which the teacher had mounted and/or 2) pictures, drawings, or other art projects which the students had prepared. The rooms varied in the amount of materials displayed.

(7) Some rooms also contained displays of various types of realia; e.g., rock collections, which were placed on tables or counters for children to view.

(8) The children spent one hour and forty minutes per day in each of the departmentalized rooms. At the end of each period, the students moved to a different room for a different set of subjects. The grouping of the subject areas were determined by the strengths and interests of the teachers involved. The fifth grade departmentalization included 1) mathematics, art, and physical education, social studies, science, and spelling, and 3) language arts and reading.

b) **Control Conditions: Instructional Characteristics**

(1) The teaching staff for the three classroom groups of students in the control treatment consisted of three teachers who were each responsible for a set of content subjects at the fifth grade level, and, during the second year, a different group of three teachers who were each responsible for a set of content subjects at the sixth grade level.

(2) The classroom teacher was solely responsible for the planning, presentation, pacing, and evaluation of the material presented.

(3) In this departmentalized organization, the subject-areas were divided among the three teachers involved according to their major strengths and interests. These subject matter groupings included 1) reading and language arts, 2) mathematics, social studies, and art, and 3) science, spelling, music, and physical education.

(4) The classroom teacher relied most extensively upon existing commercially published test books for the selection of concepts or skills to be taught. The local curriculum guide was available for general reference and for suggestions for enrichment type of activities, and for bibliographies of available resources.

(5) The classroom teacher usually conveyed orally to the students
- (1) the requirements of the assignment
- (2) the explanation of the concepts or skills being studied
- (3) the questions for the purpose of recitation or discussion
- (4) the commands or requests necessary for classroom control

(6) Some of the teachers provided or permitted some time for the discussion of topics which had personal interest to the students. Some discussion was designed to develop motivation for the study of a particular topic.

(7) The classroom teacher initiated, according to the observations conducted, an estimated 80% of the verbal interchange which occurred between students and teacher.

(8) The oral communication of the teacher was supplemented by written instructions which appeared either 1) on the chalkboard and/or 2) on dittoed worksheets which were passed out to the students.

(9) The classroom teacher assumed a major role in motivating students to work. Sometimes the motivation took the form of genuine interest on the part of the child; at other times, the motivation took the form of expectation by an adult, fear of disapproval, etc. The extent and type of motivational techniques which each teacher used varied considerably.

(10) In most subject areas, a single level of the basis textbook was used predominantly, i.e., at the fifth grade level, a fifth grade social studies text was used.

(11) In the area of language arts and reading, various typesof "kit" materials were used which were multi-level in nature.

(12) Daily assignments, e.g., in social studies or mathematics, were assigned routinely. Each student received the same assignment. The medium of the assignment was most often a "paper" or "worksheet" which required that answers to specific questions on problems be provided. Individualization of such an assignment as a completed assignment within the context of the single assignment that was assigned to all students.

(13) The classroom teacher was commonly the only adult within the classroom; the classroom teacher was seldom observed by other adults during the instructional periods.

(14) The classroom teacher also considered the criteria of neatness, orderliness, cooperativeness, expressed interest, and promptness to be of importance in the evaluation of student performance.

c) Control Conditions: Learner Characteristics

(1) The student acquired or modified his previously acquired information principally by listening to what the teacher said, by reading what the teacher assigned, and by listening to what other students said during recitations or dsicussions.

(2) Within the classroom setting, the student acquired or modified, his attitudes principally through the model presented by the teacher. There was relatively little opportunity for interaction with other students. Most of the interaction with other students occurred before and after school, during restroom breaks, etc.

(3) Within the classroom setting, the student conversed principally with the teacher. During lessons, conversation between students was generally not permitted, and little, if any, occurred. During study time, conversation was usually not allowed, except by explicit permission of the teacher. When a student did attempt to engage in social conversation during instructional or study periods, he was usually cognizant of the fact that his behavior was not being condoned by the teacher and that he needed to weigh the "risk" involved.

(4) The student's cognitive learning was almost predominately structured by questions or problems posed by the classroom teacher. Most questions involved factual-level type of answers. Nearly always, the conditions of the problem were such that one and only one answer was entertained as being the correc one. Seldom did the student have an opportunity to review the steps which led him to an unacceptable although not necessarily incorrect answer. A

few questions involved the use of generalization. Fewer necessitated the use of inferences or other higher forms of conceptual functioning.

(5) Some students received considerable social reinforcement for their learning -- and other appropriate behavior -- in the form of praise and approval from the classroom teacher. Others received relatively little.

(6) Some students formed a close, personal attachment with the classroom teacher. Others found it difficult to relate to the teacher on a personal basis.

(7) Students varied in their intellectual potential for academic success.

(8) Students varied in their motivation for academic achivement.

(9) Students varied in their intrinsic interest of the various topics studied in the curriculum.

(10) Students had limited opportunity to choose and pursue an area of study in which they were personally interested.

3. Summary of Similarities Between Conditions

a) The content of the curriculum was largely the same in both programs. For example, mathematics, social studies, and science topics were derived from the same textbook series as was used throughout the elementary system.

b) The instructional style of both programs was highly directed; that is, students were told what they must study, Little provision was made for students pursuing topics selected independently.

c) All students were given the same content and generally the same amount of content. In the individualized-contract program, the individualization took place through the fact that students were allowed to progress at individual rates. Yet, the expectation of having all students complete essentially the same amount of material remained.

d) Learning tasks in both programs relied heavily upon written assignments. Students spent a considerable portion of their school day reading questions or problems, seeking answers or solutions, and writing the answers.

e) Teachers in both programs taught primarily in only the two or three subject areas in which they have the greatest competence and interest.

4. Summary of Differences Between Conditions

a) The role of the teacher was decidedly different in the two programs. In the departmentalized program, the teacher was at all times involved with the control and direction of the students as a classroom group. In the individualized-contract program, the teacher seldom dealt with all the students as a group. Usually, this teacher worked with individual students or with small groups.

b) The nature of the teacher-student relationship was different. In the departmentalized program, the student related to the teacher generally as a member of the classroom group. In the individualized-contract program, the student was less cognizant of his membership in the classroom group as he related to the teacher.

c) The communication patterns in the two types of classrooms were different. In the departmentalized program, the teacher iniated and directed nearly all of the verbal interaction which occurred within the classroom. Even during discussions, the interchange was largely between student and teacher; it was seldom between one student and another. In the individualized-contract there was relatively little group type discussion. The communication which occurred was largely on a one-to-one basis between teacher and student or student and student. A large segment of the communication which occurred between teacher and student was by means of the written contract. There was also considerable pupil-pupil conversation within the individualized-contract program compared with relatively little pupil-pupil interaction in the departmentalized program.

d) The reinforcement patterns in the two types of programs were different. While praise for effort and achievement by the teacher was generally the same in both programs, informational feedback which helps the student to clarify and to increase the accuracy of his newly formed concepts were decidedly different in the two programs. In the departmentalized program, the student had an opportunity to hear the teacher and perhaps other students discuss new concepts. In the individualized-contract program, feedback was provided by means of the contract, self-corrected tests, etc.

e) The motivational patterns differed in the two programs. In the departmentalized program, the teacher utilized his control of the classroom group to communicate to the students the expectations in terms of levels of performance for the various subject areas. The departmentalized classroom teacher capitalized to a greater extent upon the interests and the background of experience which the students referred to in class discussions. Also in this program, the units of study appeared to have a more definite demarcation between them so that students could perceive more readily the periodic sub-goals. In the individualized-contract program, the teacher apparently had greater difficulty conveying to the students such expectations. This was perhaps due in part to the non-group nature of the classroom organization. Also, there was seemingly less opportunity for the student to make reference to his past background of experience or to utilize his personal interests in that most learning was fairly rigidly prescribed by the written contracts. In the individualized-contract program, the student's perception of the task of having to do one contract after another without being able to realize the accomplishment of specific sub-goals reportedly deterred motivation.

f) The degree of flexibility in altering pre-planned instruction differed between the two programs. That is, the extent to which instruction and learning departed from what had been planned by the teacher differed somewhat between the two programs--although this was not necessarily always the case. In the departmentalized program, because of its group structure, there was more opportunity for a class discussion to embark somewhat spontaneously upon a topic that was of current interest to the class. In the individualized-contract program,because of the nature of the written contract and the individual work, there was less opportunity for such deviation to occur. A few students did have the opportunity to devise contracts on their own, that is, to formulate their own problem, and then pursue it in the formalized manner ofthe written contract to which they had been accustomed.

g) The amount of equipment and instructional materials varied in the two programs. The individualized-contract program, being of an experimental nature, had been provided with greater numbers of audio-visual devices, science equipment, and reference materials.

h) The physical size of the classrooms in the two programs were different. In the departmentalized program, the classroom was of ordinary size and appearance, having dimensions of about 25' by 30'. In the individualized-contract program, the classroom was joined to an adjoining classroom separated only by a folding partition. Usually, this partition was open so that the students were commonly working in an area that was double the size of the departmentalized room and in an area which had another class working as well. However, the square foot per child was roughly equivalent in the two settings.

Instruments

The cognitive and affective variables which were measured in this study as well as the tests and scales which were used to secure the corresponding data are listed in Table 5.

Table 5

Tabulation of Measured Variables and Corresponding Instruments

Variable	Instrument
Control Variables	
1. Pre-Treatment Achievement	1. Iowa Test of Basic Skills
2. Intelligence	2. Lorge-Thorndike
3. Socio-economic Status	3. Warner Socio-economic Index
Dependent Variables	
1. Reading Vocabulary	1. Iowa Test of Basic Skills
2. Reading Comprehension	"
3. Language Skills	"
4. Work Study Skills	"
5. Arithmetic Skills	"
6. ITBS Composite	"
7. Physical Ability	2. Sears Self Concept Scale
8. Mental Ability	"
9. Social Relations-boys	"
10. Social Relations-girls	"
11. Physical Appearance	"
12. Teacher Relationships	"
13. Independence at School Work	"

Table 5 (continued)

Variable	Instrument
Dependent Variable	
14. Social Virtues	2. Sears Self Concept Scale
15. Happy Qualities	"
16. School Work	"
17. Academic Self Concept-Total	"
18. Work Habits	3. Spaulding Self-Concept Scale (selected sub-tests)
19. Mental Abilities	"
20. Moral Attitudes	"
21. Human Relations	"
22. Academic Self-Concept-Total	"
23. Perception of Locus of Control	4. Bialer-Cromwell Scale
24. Degree of Dependence-Proneness	5. Flander's Dependency-Proneness Scale
25. Liking for Others	6. Sears Sociometric Instrument
26. Liking by Others	"
27. Number of Isolates	"
28. Self Evaluation	"
29. Liking for School Activities	7. Sears Liking for School Activities
30. Teacher Opinions	8. Teacher Opinion Questionnaire

A description of each instrument other than the standardized and commercially available tests of achievement and intelligence are provided below.

1. Sears Self Concept Scale

   This scale, developed by Sears (1963) is a 100 item scale which includes ten sub-scales categorized as (1) physical ability, (2) mental ability, (3) social relationships-boys, (4) social relationships-girls, (5) appearance, (6) teacher relationships, (7) independence at school work, (8) social virtues, (9) happy qualities, and (10) school work. The development of this scale was based upon 195 fifth and sixth grade students. Sears presented evidence to substantiate the accuracy with which the instrument measures the variable of self-concept rather than to substantiate the validity of the instrument directly. For example, she reported correlations of high ability boys self concepts of their mental abilities with measures of their mental ability as .42 and .39. Significant, positive correlations of self concept scores were also reported on teacher ratings, peer nominations, and academic achievement. Split-half reliability is reported as .95. Test-retest reliability is reported as .85 and .82.

2. Spaulding Self Concept Inventory

   This scale, developed by Spaulding (1963), is a modification of the Sears Self Concept Scale. As a consequence, many of the sub-scales overlap. Only selected portions of this scale were used to supplement and validate the data obtained by use of the Sears scale. The sub-scales selected included: (1) work habits, (2) mental abilities, (3) mental attitudes, (4) human relations skills, and (5) total score.

3. Locus of Control Scale

This scale, developed by Bialer and Cromwell (1960), is a 23 item scale which is designed to measure the degree to which a child perceives and conceptualizes that his successful and unsuccessful (failure) experiences are a result of his own abilities or inabilities rather than being the result of some undefined, "external" agent. Bialer and Cromwell also contend that a child's "sense of control" changes over time in the course of other aspects of emotional and social development. As a demonstration of validity, Bialer (1960) reported a multiple correlation of .56 between the locus of control scores with mental age and chronological age. Reliability coefficients of .87 and .94 have been reported for the scale.

4. Sears Social Distance Scale

This scale, modified by Sears (1963), assesses how each child feels about every other child in the room. The five-point scale permits the child to report whether every other child is one who he would like to have as his best friend or is one that the child dislikes. The child is also asked to report how he thinks the others in the class will rate him when he comes to his name on the scale. Measures of "liking for others," "liking by others," "number of perceived isolates," and a "self evaluation" were obtained by this instrument. An odd-even type correlation technique to determine reliability was used and reliability correlations of .95 and .90 were reported. Fall-spring stability coefficients of .55 and .77 were also reported (Sears, 1963).

5. Dependence-Proneness Scale

   This scale, developed by Flanders (1961), is a 45 item scale which is designed to measure the degree to which children perceive themselves as being dependent upon others. The reported reliability coefficient for the scale is .68. The validity of the scale was demonstrated, in part, by the fact that females score significantly (.01 level) higher than males in a study which involved 646 males and 144 females. This is in keeping with the expectation that the males in the American culture display greater independence than females.

6. Liking for School Activities

   This is another scale developed by Sears (1963) in her study of self concept. This 45 item scale asks that the child rate how well he likes various types of school related activities.

7. Teacher Opinion Questionn

   This questionnaire was developed locally and was designed specifically to assess the opinions of those teachers who were involved in the individualized instructional programs were being conducted. Because the individual items in this questionnaire related directly and singly to the individualized-contract form of instruction, and because of the objectives of its intended use, it was not deemed appropriate to administer it to the teachers in the control program -- thus respecting the content validity of the instrument itself.

Design

The design for this study consisted of a two-year longitudinal assessment of two groups of students, who, having experienced approximately similar types of classroom organisation during kindergarten through Grade 4, were assigned to two different types of classroom organization during Grade 5 and Grade 6.

Base-line data was collected for both groups at the end of Grade 4. Succeeding measurements were taken at the end of Grade 5 and Grade 6 for the two groups.

Because the preliminary analysis of the Grade 4 data revealed that the pre-treatment mean scores on achievement and intelligence tests were significantly different between sexes, separate analysis were conducted on the data secured from boys and from girls. Figure 1 presents a graphic illustration of the design.

	CONTROL GROUP		EXPERIMENTAL GROUP		
	Boys	Girls	Boys	Girls	
1961-66	Kindergarten through Grade 4 Self-contained		Kindergarten through Grade 4 Self-contained		*
1966-67	Grade 5 Departmentalized		Grade 5 Individualized-contract		**
1967-68	Grade 6 Departmentalized		Grade 6 Individualized-contract		***

*Data collected, Spring, 1966
**Data collected, Spring, 1967
***Data collected, Spring, 1968

Figure 1. Illustration of the Longitudinal Design.

Statistical Analysis

The data by sex, which was obtained on repeated measures of each of the dependent variables, was treated with a one way analysis of variance technique for each of the nine possible across-time comparisons. Figure 2 describes these nine comparisons.

Because of the nature of the scaled scores on the sociometric instrument, the scores for the boys and girls were combined in each group. The scores for all the students (46) in the experimental group were used and an equal number were randomly drawn from the control group which represented both boys and girls.

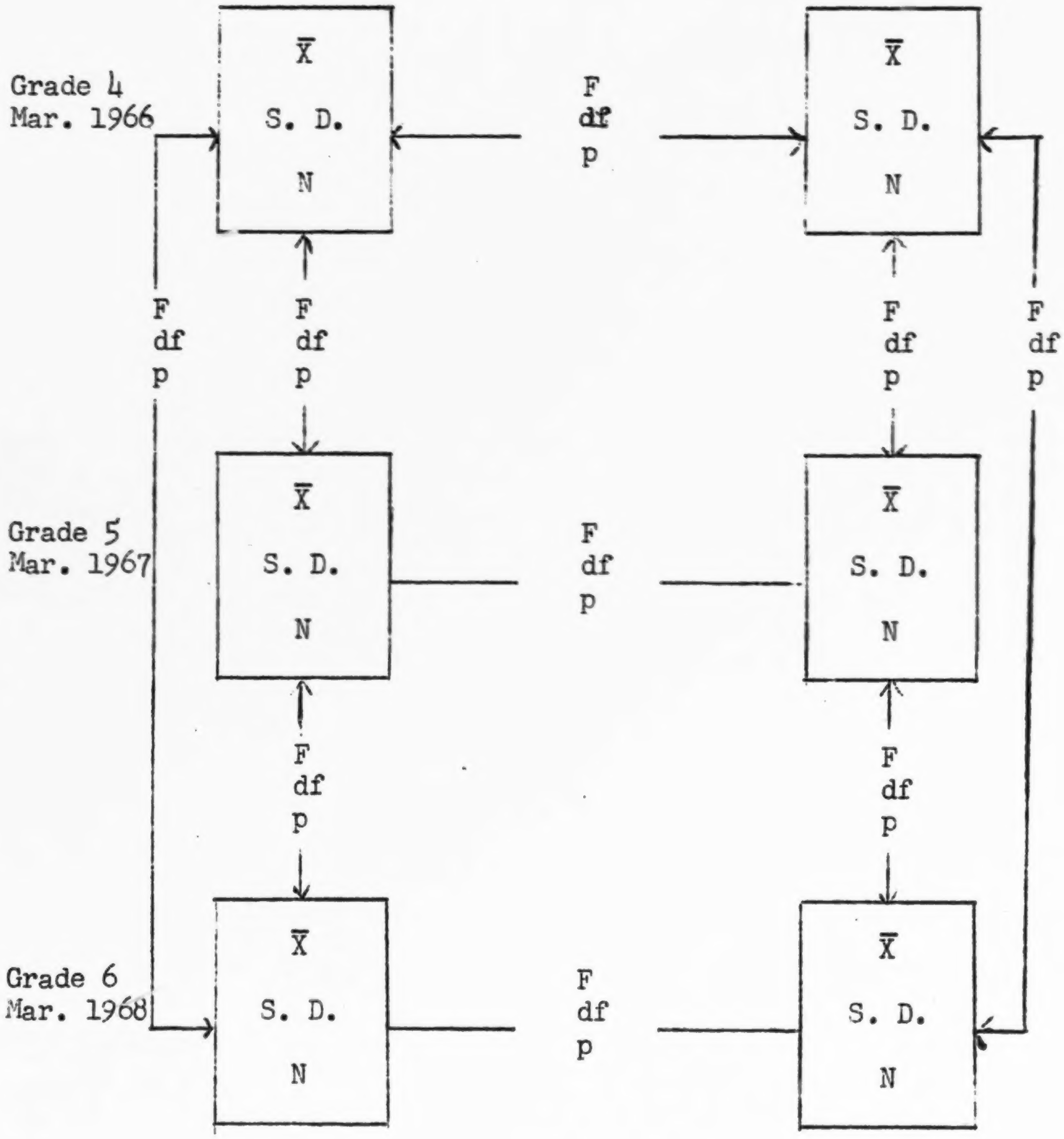
Grade 4
Mar. 1966
$\bar{X}$
S. D.
N
F
df
p
Grade 5
Mar. 1967
Grade 6
Mar. 1968

Figure 2. Illustration of the Nine Comparisons Made on Each Dependent Variable in the Statistical Analysis for Boys and Girls Separately.

CHAPTER IV

FINDINGS: STUDENT DATA

To recapitulate, the purpose of this phase of the study was to assess selected types of cognitive and affective behavioral changes exhibited by two groups of intermediate grade elementary students as each group proceeded through a different type of classroom organization during their fifth and sixth grade years. The design involved the collection of data at the end of Grades 4, 5, and 6 for each group. The statistical analysis utilized a one way analysis of variance technique for each of the nine possible comparisons, as illustrated in Figure 2 on page 35. Separate analyses of the data were performed for boys and girls.

The discussion of the results, which follows, will describe the findings in summary form. A more detailed analysis of the findings can be gained from a systemic inspection of the tables and corresponding graphs which report the data.

Due to the sizeable amount of data collected in the assessment of each of the thirty dependent variables, the graphs and tables which present this information have been grouped systomically in Appendixes A, B and C. Appendix D presents the results of the Teacher Opinion Questionnaire.

Academic Achievement

(Refer to Appendix A, Table A-1-m through Table A-6-f; Figure A-1 through Figure A-6.)

An analysis of the changes in academic achievement, as measured by the Iowa Tests of Basic Skills, revealed consistent and similar growth rates for both groups and both sexes. Statistically significant differences between the mean scores for each of the grade levels within groups was anticipated and was observed.

Significant changes (or gains) were not observed on the Vocabulary subtest or the Language subtest for boys in individualized-contract program. Similarly, no significant achievement gains were observed between Grades 5 and 6 for either boys or girls in the departmentalized program on the Reading Comprehension subtest. (See Figure A-1 through A-6 for other trends.)

The technical data for these analyses are presented in Appendix B, Table B-1 through Table B-18.

Academic Self-Concept (Sears Scale)

(Refer to Appendix A, Table A-7-m through A-17-f; Figure A-7 through Figure A-17.)

Measures of self-concept, that is, the way in which students report how they feel about themselves within certain types of school settings, were obtained by four different instruments. Because of the relatively unrefined status of instruments of this type, it was deemed important to use several different measures in order that common tendencies or patterns could be detected in order to substantiate any single observation.

Regarding the observed changes in affective measures generally, and in self concept measures specifically, Figure A-17 illustrates the general trends. From these results, it appears that the boys in the departmentalized program reported a more positive academic self concept as they proceeded from the self-contained type of classroom organization to a departmentalized form of classroom organization whereas the girls in the individualized-contract program reported a less positive academic self concept.

Comparison of the scores on the Sears Self Concept Scale and the Spaulding Self Concept Scale, as described in Figure A-17 and Figure A-22 illustrates the same general trends for both sexes although not all of the changes are of sufficient magnitude to be statistically significant.

For boys, on the Sears Self Concept Scale, no significant changes were observed between grades or between programs on the subtests which were labeled 1) Physical Abilities, 2) Mental Abilities, 3) Physical Appearance, 4) Teacher Relationships, 5) Independence, 6) Social Virtues, or 7) Happy Qualities.

A significant difference in the Boys Relationships With Other Boys was observed between the two groups at Grade 5 with the boys in the individualized program reporting lower scale values on this subtest. (See Table A-9-m and Figure A-9.)

Significant changes in Boy-Girl Relationships were observed among the boys in the experimental group between Grades 4 and 6. The change in the mean scale scores on this subtest increased. (See Table A-10-m and Figure A-10.)

The subtest on School Work revealed that the boys in the individualized program reported lower levels of self-concept between

Grades 4 and 5 and between Grades 4 and 6 such that differences between the two programs became significant by Grade 6. (See Table A-16-m and Figure A-16.)

For girls, on the Sears Self-Concept Scale, no significant changes were observed between grades or between programs on the subtests which were labeled 1) Physical Abilities, 2) Mental Abilities, and 3) Social Relationships with Boys.

Statistically significant differences in reported Girls Relationships with Girls were observed on the Social Relations-Girls subtest. The girls in the individualized program reported lower scores between Grades 4 and 5 and between Grades 4 and 6. Significant differences existed between programs at Grade 5 with the girls in the departmentalized program reporting higher self concept scale values.

Significant differences observed on the results of the Physical Appearance subtest with the girls in the individualized program reporting lower scale values between Grades 4 and 6. (See Table A-11-f and Figure A-11.)

On the Teacher Relationships subtest of this self concept scale, significant differences were observed for girls in the individualized program having lower scale values at Grade 6 as compared with their scale values at Grade 4. (See Table A-12-f and Figure A-12.)

On the subtest, which was intended to assess Independence as related to school work habits, the girls in the individualized program had significantly lower scale values at Grade 6 than at Grade 4. Significant differences also existed between programs at Grades 5 and 6. (See Table A-13-f and Figure A-13.)

Scores on the Social Virtues subtest were significantly lower for the girls in the individualized program between Grades 4 and 6. (See Table A-14-f and Figure A-14.)

A subtest which was labeled as Happy Qualities revealed significant differences for girls in the individualized program between Grades 4 and 6. Significant differences also existed between programs at Grade 6. (See Table A-15-f and Figure A-15.)

The subtest on feelings about School Work revealed significant differences for girls in the individualized program between Grades 4 and 5 and between Grades 5 and 6.

Academic Self Concept (Spaulding Scale)

(Refer to Appendix A, Table A-18-m through Table A-22-f; Figure A-18 through Figure A-22.)

Four subtests and the total scores were selected from the Spaulding Academic Self Concept Scale in order to substantiate certain observations made on the Sears Self Concept Scale.

For boys, the significant differences were observed between programs or between grades for subtests labeled as 1) Work Habits, 2) Moral Attitudes, or 3) Human Relations. No significant differences were similarly observed on comparison of the total scores for the scale. A significantly lower score was observed for the boys in the departmentalized program at Grade 5 for scale values on the Mental Attitudes subtest. Although a comparable difference was not observed on the Mental Abilities subtest of the Sears Scale (See Table A-8-m), a comparison of the graphs for boys in Figure A-8 and Figure A-19 do reveal similar trends for both groups of boys.

For girls, statistically significant differences were observed on certain comparisons on each of the Spaulding subtests and total score. On the Work Habits subtest, while the scores for girls in both groups indicated a negative trend between Grade 4 and 6, the differences were not significant between programs until Grade 6 where the girls in the individualized program reported the lower self-concept pertaining to work habits.

A similar, consistent trend is observed in self concept scores for girls pertaining to their feelings about Mental Attitudes. The scores for girls in both programs declined. The decrease for girls in the individualized program was significant at the .05 level of probability.

On the subtest labeled Moral Attitudes, the same trends are observed. A statistically significant difference ($P < .01$) is observed between Grades 4 and 6 scores for girls in the individualized program.

The trends remain consistent on the Human Relations subscale. The difference in scores between Grade 4 and 6 is significant ($P < .01$) for girls in the individualized program.

For the total scores on the Spaulding Self Concept Scale, the graph in Figure A-22 indicates that students in both programs reported generally lower scores although the differences were not statistically significant between Grade 4 and 5. The decline continued for both boys and girls in the individualized program whereas a "leveling" effect was observed for students in the departmentalized program. Statistically significant differences were observed between Grade 4 and 6 for girls in the individualized program (P .05) and between programs for girls at Grade 6 (P .01).

Locus of Control

(Refer to Appendix A, Table A-23-f and Table A-23-m and Figure A-23.)

The purpose of the Locus of Control Scale is to measure the degree to which the child perceives and conceptualizes that his successful and unsuccessful (failure) experiences are a result of his own inabilities rather than those experiences being the result of some undefined, "external" agents. Thus a low score represents a perception of the control existing externally in contrast to a high score which represents a perception of a relatively greater internalization of a locus of control.

Because of general social maturation, changes in the reported Locus of Control perceptions were anticipated and were observed over the two year period for both sexes in the departmentalized program, for boys in the individualized program, but not for girls in the individualized program.

For boys, both groups reported significant changes between Grade 4 and 6. The mean Locus of Control score for boys in the departmentalized program was significantly ($P<.05$) higher than the mean score for the boys in the individualized program.

For girls, a significant gain ($P<.01$) between mean scores at Grade 4 and 6 was observed in the departmentalized program, but no significant difference was observed for the girls in the individualized program although a positive trend was observed. This latter finding further corrobated the results observed on the Sears Independence subscale.

Dependence Proneness

(Refer to Appendix A, Table A-24-f and Table A-24-m and Figure A-24.)

A variable somewhat akin to Locus of Control is the child's perception of his dependence upon others. On the Flander's Dependence-Proneness Scale, a high score represents a relatively high degree of reported dependence on others whereas a low score represents a low degree of self-perceived dependence on others. For boys, no significant differences were noted between grades or between programs.

The girls in both programs exhibited similar types of trends between Grade 4 and 5. From Grade 5 to 6, however, the girls in the individualized program reported lower scores in Grade 6 (although the difference was not significant). The difference in mean scores for girls between programs at Grade 6 was significant at the .05 level.

Sociogram: Liking for Others

(Refer to Appendix A, Table A-25 and Figure A-25.)

In order to obtain useable mean scores for the data from this instrument, the scores of boys and girls were combined by program for the analysis and a random sample of 46 students was drawn from the departmentalized group in order to obtain the same N for each group.

On the analysis which determined the mean "degree of liking" exhibited by the students in each group, statistically significant differences between means at each grade level were observed with the students in the departmentalized program reporting a greater degree of "liking for others." The differences between Grade 4 means and Grade 6 means for both groups were lower and significantly different ($P < .05$).

Sociogram: Liking by Others

(Refer to Appendix A, Table A-26 and Figure A-26.)

This sociogram technique also provided a means of assessing the mean ratings which indicated to what extent individual students were "liked by others." The mean scores between programs at each of the three grade levels were statistically significant with the students in the departmentalized program having received a greater "liking by others" score. This finding is in agreement to the "liking for others" score. The decreasing trend of scores is also consistent on both of these subscales.

Sociogram: Number of Isolates

(Refer to Appendix A, Table A-27 and Figure A-27.)

The sociogram instrument also provided a means for assessing the number of isolates identified by the students within their respective groups. The difference between the mean number of isolates reported by each group was not significant at the fourth grade level. However, the mean number of reported isolates did increase in the individualized group to the degree where the difference between Grade 4 and Grade 5 means were significant at the .05 level. This change also resulted in significant mean differences at Grade 5 ($P < .001$) and at Grade 6 ($P < .01$).

Sociogram: Self Evaluation

(Refer to Appendix A, Table A-28 and Figure A-28.)

The sociogram instrument assessed the student's evaluation of how he thought he was perceived by the others in his classroom group. This subscale did not report any significant differences between groups or any significant changes between grade levels.

Liking for School Activities

(Refer to Appendix A, Table A-29 and Figure A-29.)

This instrument surveyed student opinion as to their liking for a variety of school and classroom type activities. The differences of mean scores between programs at Grade 4 were not statistically significant for either boys or girls.

For boys in the individualized program, a significantly lower mean score was observed at Grade 6 in comparison to the mean score at Grade 4. The difference in mean scores at Grade 6 between programs was significant at the .05 level of probability.

For girls in the individualized program, the differences between the mean scores were significant between Grades 4 and 5 ($P < .01$) and between Grades 4 and 6 ($P < .001$). This change for a lower "liking" score is consistent with numerous other attitudinal measures for girls in the individualized program.

CHAPTER V

RESULTS AND DISCUSSION: TEACHER OPINION DATA

To supplement the student report data discussed in Chapter IV, an opinion survey was conducted of the sixteen elementary teachers who were engaged in individualized instructional projects in the Duluth school system. A 78 item questionnaire was constructed which would elicit teacher opinions about various aspects of the newly instituted type of classroom organization. The percent of agreement and disagreement was computed for each item. A chi-square analysis was conducted to determine whether the differences between the two percentages on each item were statistically significant.

To review, the purpose of conducting the survey was three-fold:

1. to determine the extent to which teachers felt that the individualized programs were fulfilling their educational objectives,

2. to determine the manner in which the teachers in the respective programs envisioned the suitability of the methods and procedures utilized, and,

3. to determine the manner in which these teachers perceived the problems involved in changing from a conventional to a somewhat unconventional form of classroom organization.

Each item of the questionnaire with the computed percentages of agreement, disagreement, and probability levels of the observed differences are reported in Appendix D. A careful examination of each item is necessary in that educationally significant information may reside in the results whether the agreement-disagreement percentages are statistically significant or not. This, of course, depends upon the exact manner in which the statement was worded.

The Pupil and the Project Program

According to the questionnaire results, a significantly greater percentage of the teachers surveyed agreed than disagreed that:

1. (Item 6) The high ability child profits most from being in an individualized-contract form of classroom.
2. (Item 15) Because children work independently for a major portion of the time, they occasionally learn things erroneously; for example, mispronunciations of words, incorrect concepts about abstract type science or social studies topics.
3. (Item 16) Some children appear to be more secure when allowed to work independently as compared to where they would have to work in a classroom group situation.

The questionnaire also revealed a signifcantly greater percentage of teachers disagreed than agreed that:

1. (Item 1) Most pupils at your grade level seem to be mature enough to be able to profit from a project type program.
2. (Item 2) Most pupils seem to like the individualized-contract form of classroom more than the conventional classroom.
3. (Item 3) The elementary curriculum should be largely limited to basic and academically respectable subjects instead of construction projects and social activities.
4. (Item 12) Boys appear to profit more, academically, from a project type program than girls.

The reader is directed to examine carefully even those items where no statistically significant differences were observed between percentages of agreement or disagreement. For instance, there were no significant opinion differences on item Number 14, which stated that girls appear to have a better attitude toward school in a project type (individualized) program as compared to the conventional type program.

Yet, repeated observations of differences in the attitudinal self-report instruments indicates that the girls in the individualized program did not have a better attitude than when they themselves were in a conventional type of classroom.

Instructional Aspects: The Curriculum

A greater percentage of project teachers agreed than disagreed that:

1. (Item 18) There is plenty, or at least, sufficient, opportunity in the project program for children to work in small groups on committee-type projects.
2. (Item 19) There is plenty, or at least sufficient opportunity in the project program for children to be creative in writing stories and reports of their own choosing.
3. (Item 20) The project school curriculum provides a good balance between skills, understandings, and appreciations.
4. (Item 23) The project program provides adequate opportunity for students to do creative art or craft-type projects--such as painting, murals, construct dioramas, construct models, etc.
5. (Item 24) The project program provides enough time for class discussions, that is, the entire class discussing a single topic at a particular time.

Regarding the instructional aspects pertaining to the curriculum of the individualized program, a greater percentage of teachers disagreed that:

(Item 25) It is wiser to obtain specific teaching objectives from published curriculum guides, published text books, and so on, than it is to burden teachers to write their own.

Instructional Aspects: The Contract

A greater percentage of teachers agreed that:

1. (Item 30) Contracts are really open-ended--that is, they provide for sufficient enrichment activities to challenge the highly motivated student.

2. (Item 33) Most children are eager to finish one contract and start on the next.
3. (Item 36) Some children have a very difficult time reading the written contract.
4. (Item 38) The types of knowledges and skills called for by the contract are appropriate learnings for the child at your grade level.
5. (Item 40) Children should be given more opportunity to write some of their own contracts.

Regarding their opinions about contracts, more teachers disagreed that:

1. (Item 26) Teacher-led presentations are necessary only when a child, or a group of children, appear to be having difficulty in coping with a task called for by a contract.
2. (Item 29) Once a contract is written, it can be used for years to come.

Again, it is important to inspect those items where no significant difference in reported responses existed. For instance, there was no significant difference in agreement or disagreement on Item 39 which stated that "The caption which appears on each contract and which spells out the specific learning objective (and level of proficiency required) is important and meaningful to the child." Although the percentages indicated a tendency for general agreement on the item, it is of interest to note that a stronger "agreement" response was not obtained on this item in that the contract, and especially this feature of the contract, are central to the individualized-contract concept. The reader should inspect the other items which did not report statistically significant differences between responses for their implications to an evaluation of the programs. In many cases, the direction of agreement or disagreement is of interest.

Instructional Aspects: Programed Materials

In that some of the efforts to individualize instruction depended upon the utilization commercially available programed materials, a survey of teacher opinion was directed to this aspect. Of the teachers responding, a significantly greater percentage agreed that:

> (Item 44) Some students at times become confused and frustrated as they work in programed materials.

Teachers disagreed that:

> (Item 48) The subject matter of the programed materials that are available are not really appropriate for the things generally taught at your grade level.

Instructional Aspects: General

Teachers agreed that:

1. (Item 49) All in all, the project type program is probably a better program in meeting the needs of children.
2. (Item 52) Although motivating students has been one of the difficulties encountered thus far with the project program, given the opportunity, the project teachers would be able to come up with a workable solution to this obstacle.
3. (Item 53) In terms of work load, energy, effort, and time expended, the project school demands too much of a teacher.
4. (Item 63) The building principal should take a more active part in assuming the development responsibility for the development and the operation of the project program.
5. (Item 65) The classroom teacher should have a role in formulating what should be taught to children at his or her particular grade level.
6. (Item 66) The personal and professional relationships between project team teachers are probably stronger than those relations that exist among the conventional classroom teachers who work in any single elementary building.

Regarding instructional aspects generally of the individualized type of program, the teachers disagreed that:

1. (Item 51) Classroom control, or discipline, is less of a problem in the project school classroom than in the conventional classroom.

2. (Item 60) The team leader should be responsible directly to the central administration and not necessarily directly responsible to the building principal.

3. (Item 62) The project teacher's major responsibilities should be largely limited to preparing contracts, testing children, and checking with other project teachers on the progress of individual students.

Changing to a Different Type of School Organization

Of particular concern to school administrators is the problem of inducing teachers to undertake changes in their professional roles. The last section of the questionnaire sampled teacher opinions regarding the manner in which they viewed or experienced the problems of changing from a conventional form of classroom organization to a decidedly different form of classroom organization which, in this case, was an individualized contract form.

The teachers agreed that:

1. (Item 67) If your school was asked to adopt a different type of program of organization than what it has even now, you would be willing to participate in such a new program.

2. (Item 70) The teachers would want a year-long period of inservice training before such a program was started.

3. (Item 71) The teachers would want a chance to plan a program that would be especially tailored for their school rather than adopting "wholesale" the individualized-contract plan now followed in some of the project schools.

4. (Item 75) Teachers in the conventional classroom buildings would like to see instruction improved but this does not necessarily mean the adoption of an individualized-contract form of organization.

2

5. (Item 76) Teachers would have many new ideas to suggest on how instruction might be improved in their present buildings.

6. (Item 78) The classroom instruction that occurs in the conventional classroom should be improved considerably.

The teachers disagreed that:

(Item 69) Teachers should be expected to participate in a project type program whether they volunteer for the program or not.

CHAPTER VI

SUMMARY

The individualization of instruction according to the needs, abilities, and interests of students is an accepted ideal of American education. How such a concept can be fully and realistically implemented, however, remains a foremost professional challenge.

In this present age of educational innovation, some educators have undertaken the problem of developing classroom procedures by which the concept of individualized instruction can be feasibly put into practice. Such a development effort has been undertaken in certain of the Duluth (Minnesota) public schools.

The purpose of this study was not to test the soundness of the already accepted principle of individualized instruction. Rather, the expressed purpose was to collect the necessary descriptive information which would enable educators to determine the extent to which the Duluth individualized-contract program was successful in implementing the individualization of instruction concept. Furthermore, in that such implementation efforts commonly represent significant departures from present classroom practices, a part of this study was devoted to collecting teacher opinions about 1) the innovation program itself and 2) educational change. Thus, the intended use of the information reported herein was to assist the educators involved in identifying the factors that were either contributing or not contributing to the implementation of the individualized instruction concept in order that appropriate, on-going modifications could be made.

Any interpretation of the data secured must be made within the context of the design utilized in the study. The descriptive information was secured to make comparisons between a group of students who were enrolled in an individualized-contract form of classroom organization during Grades 5 and 6 and another group of students who were enrolled in a more conventional, departmentalized program. Pre-treatment data suggested that these two groups of students did not differ significantly prior to the evaluation period on measures of academic achievement, intelligence, socioeconomic background and certain but not all of the attitudinal measures. Moreover, both groups had experienced similar self-contained forms of classroom organization during their previous years in school.

Within the context of the design utilized, the findings suggest that the students from a middle socioeconomic background who were enrolled in the individualized-contract form of classroom organization attained expected levels of academic achievement. Any interpretation of this finding needs to recognize that other types of academic learning may have been occuring in either program that was not measured on the Iowa Test of Basic Skills.

There were numerous indications that the students in the individulaized program were acquiring less-positive attitudes about learning, school, fellow classmates, and, most importantly, themselves as they proceeded through the two year evaluation period. This finding is in agreement with other evaluations of the Duluth individualized programs (Dethmers, 1968; Alschuler and Ham, 1969). If it is assumed that such attitudinal characteristics are essential curricular outcomes, then it appears imperative that a further analysis be made of this instructional system in order to ascertain what procedural components are contributing to the lower attitudinal ratings that have been consistently observed in all three studies.

The opinion survey made of the teachers identified as project teachers in this individualized-contract program reflected generally a positive statement of support for the individualized-contract type of program. The teacher reactions to the specific items identifed numerous characteristics that suggested that the individualized-contract program was appropriate to the needs of students and that it was meeting certain of the objectives of the individualized instruction concept.

The survey also identified areas where the program was not accomplishing its objectives. For instance, the survey of teacher opinion further substantiated the previously reported observation that students in the individualized-contract program reported liking school related activities less well after experiencing the individualized program.

In addition, the survey provided considerable insight into the feelings of teachers concerning the situation where administrators expected the teachers to undertake a different and perhaps more demanding professional role.

While the specific purpose of this study was to provide descriptive information about an innovative educational program, the ultimate purposes will not be fully realized until the findings are utilized. Only then can it be felt that the efforts represented by this study have made any meaningful contribution toward the realization of the individualization of instruction.

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BIBLIOGRAPHY

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APPENDIX A

ANALYSIS OF VARIANCE SUMMARIES - TABLES AND FIGURES

TABLE A-1-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS VOCABULARY SCORES

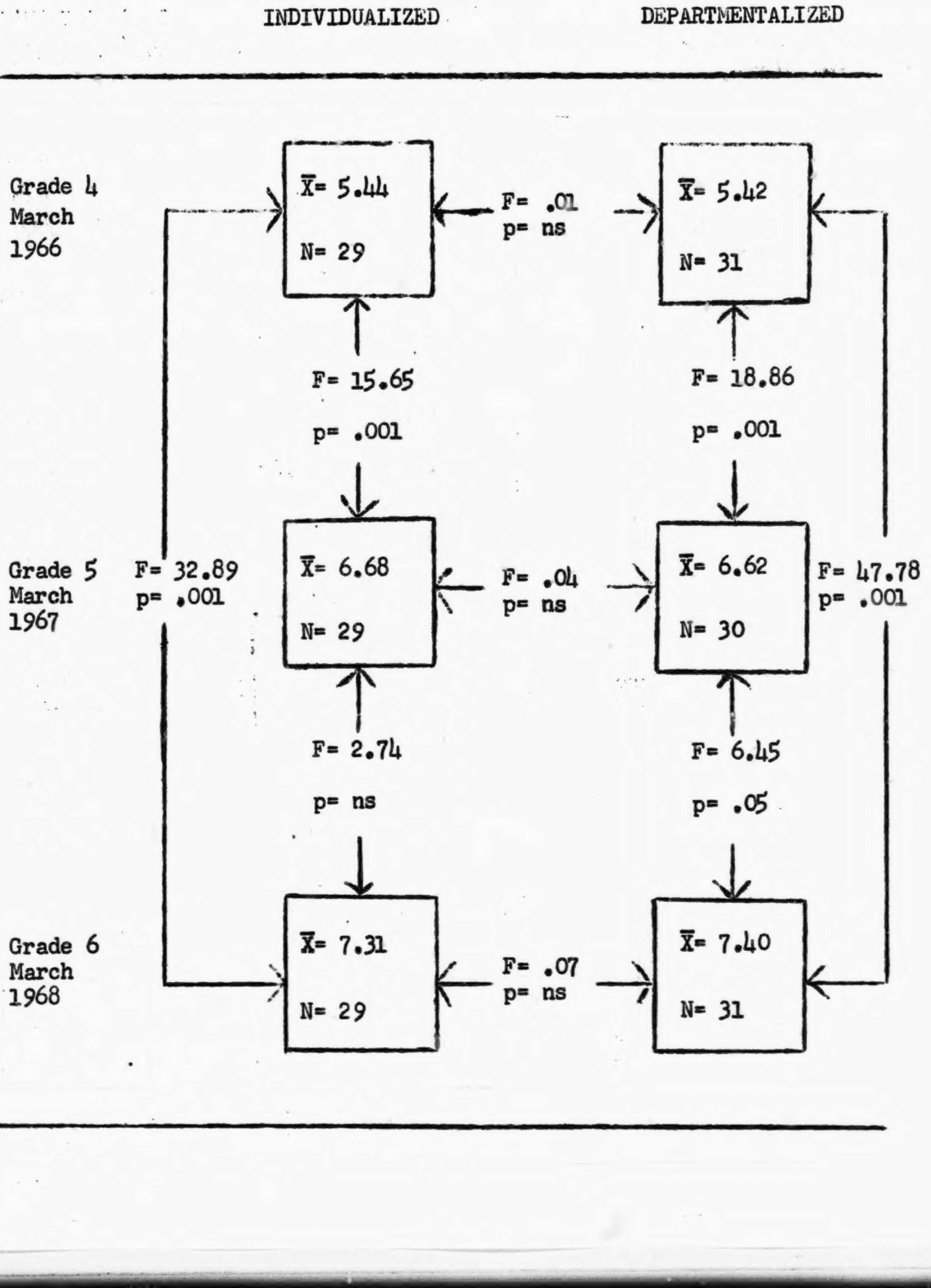

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
X̄= 5.44
N= 29
F= .01
p= ns
X̄= 5.42
N= 31
F= 15.65
p= .001
F= 18.86
p= .001
Grade 5
March
1967
F= 32.89
p= .001
X̄= 6.68
N= 29
F= .04
p= ns
X̄= 6.62
N= 30
F= 47.78
p= .001
F= 2.74
p= ns
F= 6.45
p= .05
Grade 6
March
1968
X̄= 7.31
N= 29
F= .07
p= ns
X̄= 7.40
N= 31

TABLE A-1-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS VOCABULARY SCORES

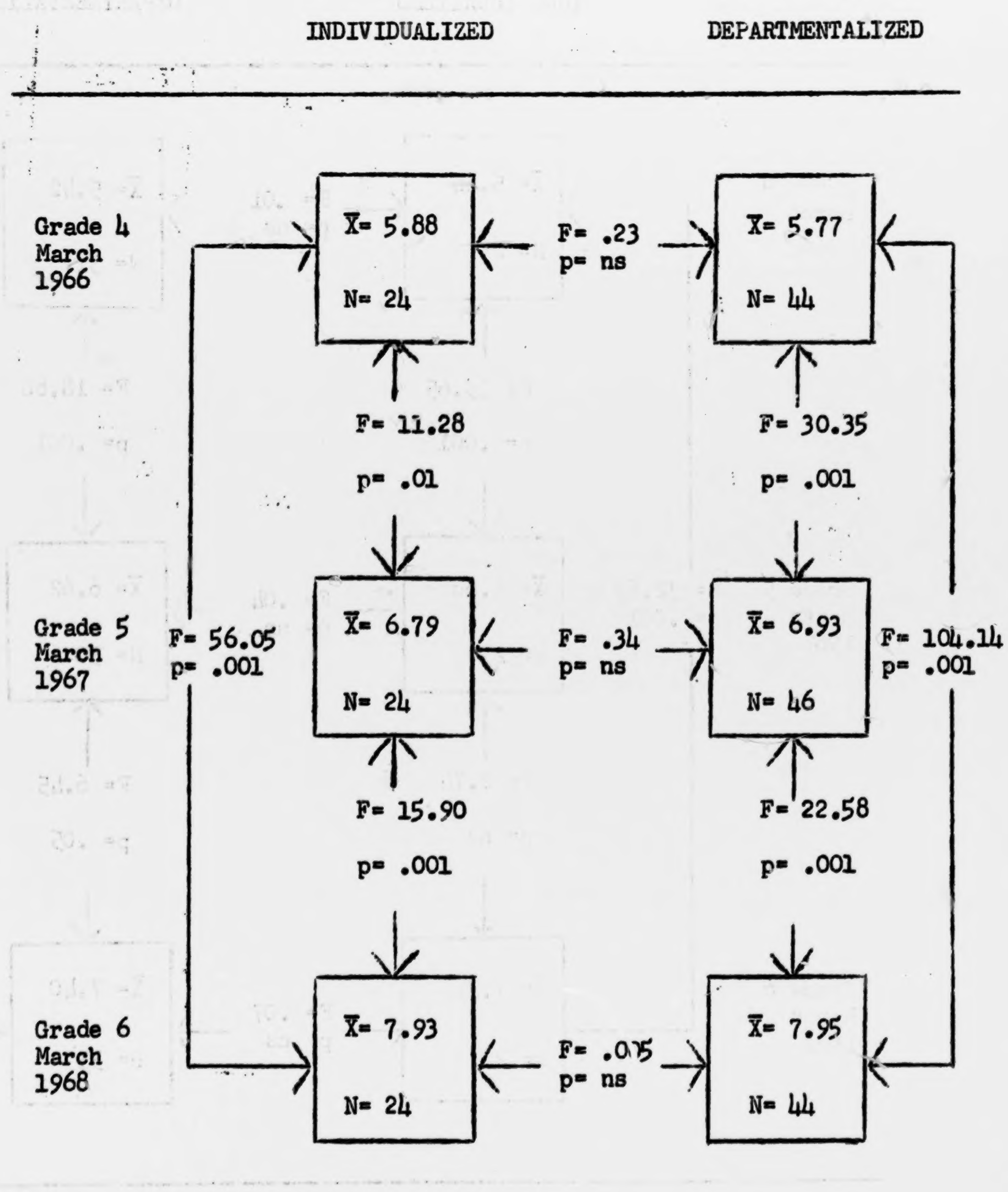

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
X̄= 5.88
N= 24
F= .23
p= ns
X̄= 5.77
N= 44
F= 11.28
p= .01
F= 30.35
p= .001
Grade 5
March
1967
F= 56.05
p= .001
X̄= 6.79
N= 24
F= .34
p= ns
X̄= 6.93
N= 46
F= 104.14
p= .001
F= 15.90
p= .001
F= 22.58
p= .001
Grade 6
March
1968
X̄= 7.93
N= 24
F= .05
p= ns
X̄= 7.95
N= 44

FIGURE A-1

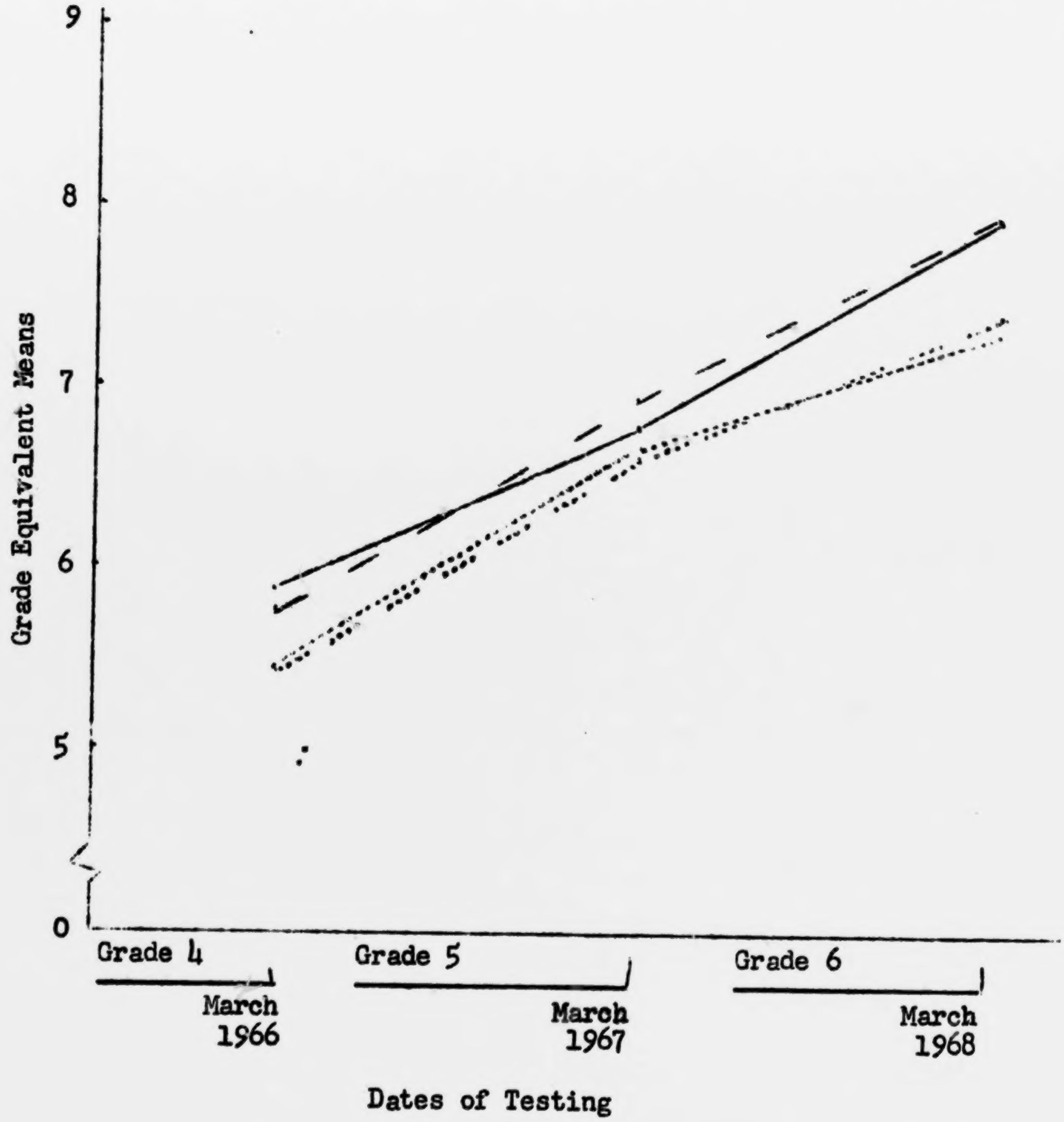


Figure A-1 ITBS Vocabulary Mean Scores for Students Enrolled in Two Forms of Elementary Classroom Organization Evaluated During Grades Five and Six

TABLE A-2-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS READING COMPREHENSION SCORES

INDIVIDUALIZED DEPARTMENTALIZED

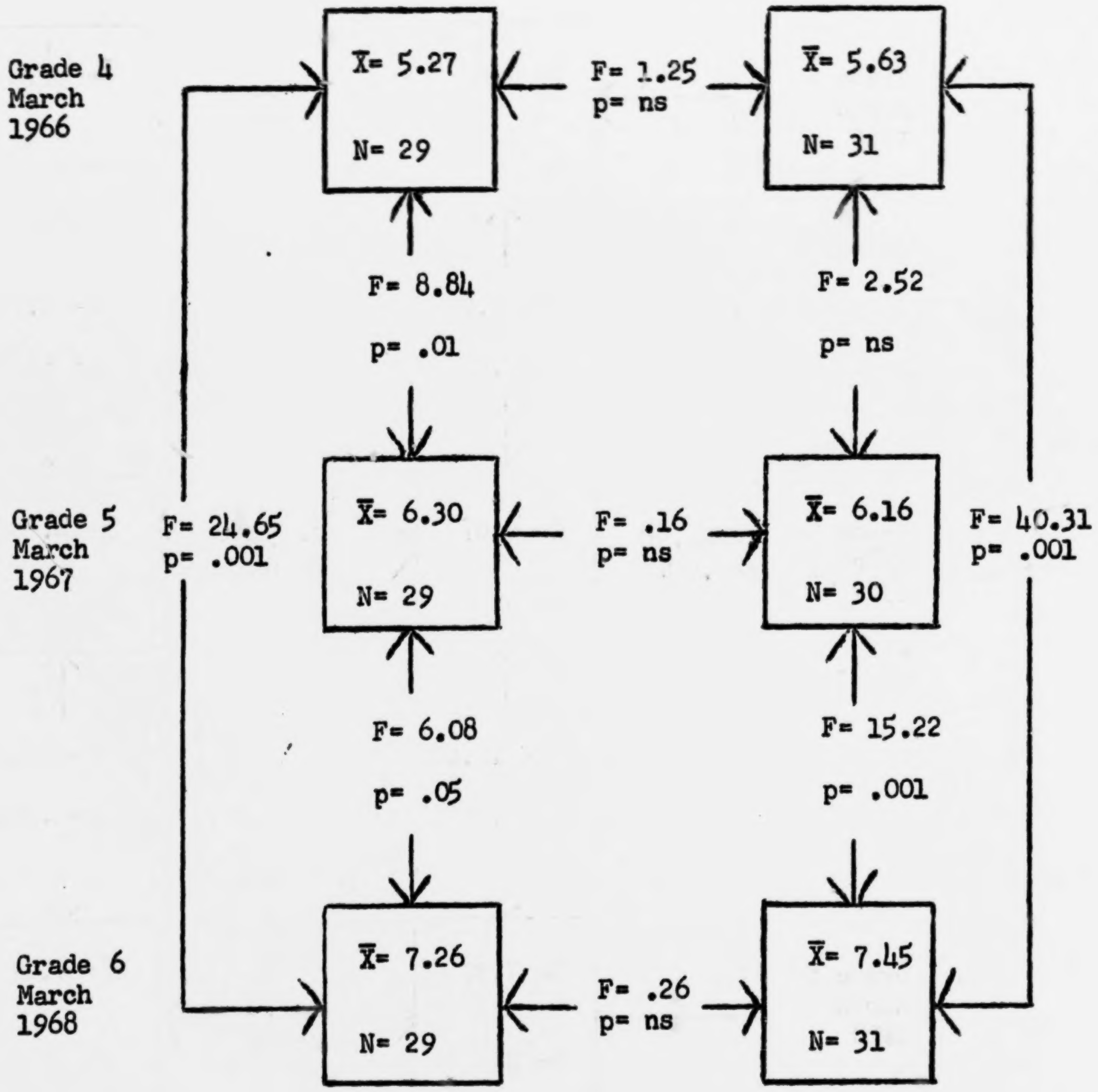

Grade 4
March
1966
X̄= 5.27
N= 29
F= 1.25
p= ns
X̄= 5.63
N= 31
F= 8.84
p= .01
F= 2.52
p= ns
Grade 5
March
1967
F= 24.65
p= .001
X̄= 6.30
N= 29
F= .16
p= ns
X̄= 6.16
N= 30
F= 40.31
p= .001
F= 6.08
p= .05
F= 15.22
p= .001
Grade 6
March
1968
X̄= 7.26
N= 29
F= .26
p= ns
X̄= 7.45
N= 31

TABLE A-2-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS READING COMPREHENSION SCORES

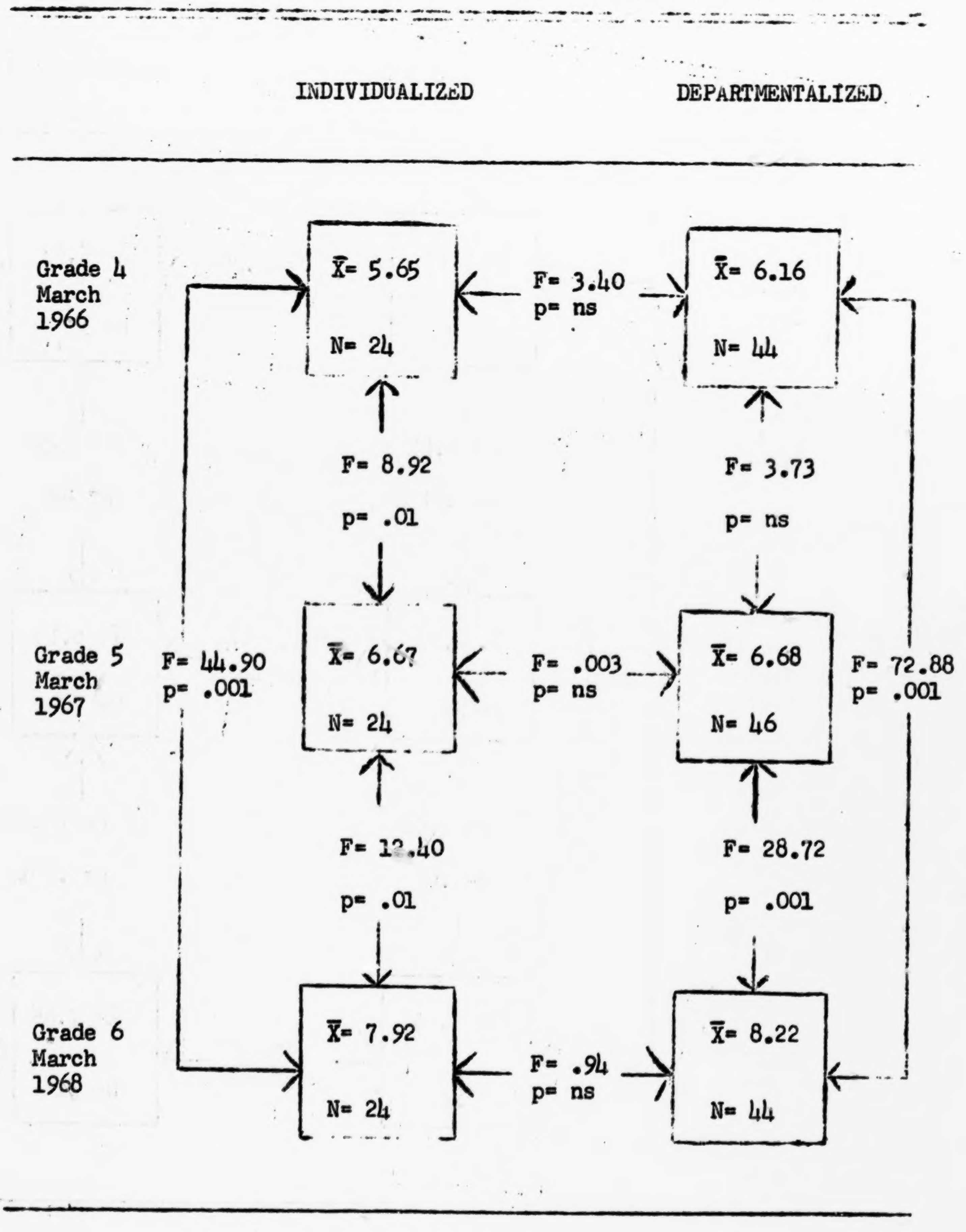

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
X̄= 5.65
N= 24
F= 3.40
p= ns
X̄= 6.16
N= 44
F= 8.92
p= .01
F= 3.73
p= ns
Grade 5 March 1967
F= 44.90
p= .001
X̄= 6.67
N= 24
F= .003
p= ns
X̄= 6.68
N= 46
F= 72.88
p= .001
F= 12.40
p= .01
F= 28.72
p= .001
Grade 6 March 1968
X̄= 7.92
N= 24
F= .94
p= ns
X̄= 8.22
N= 44

FIGURE A-2

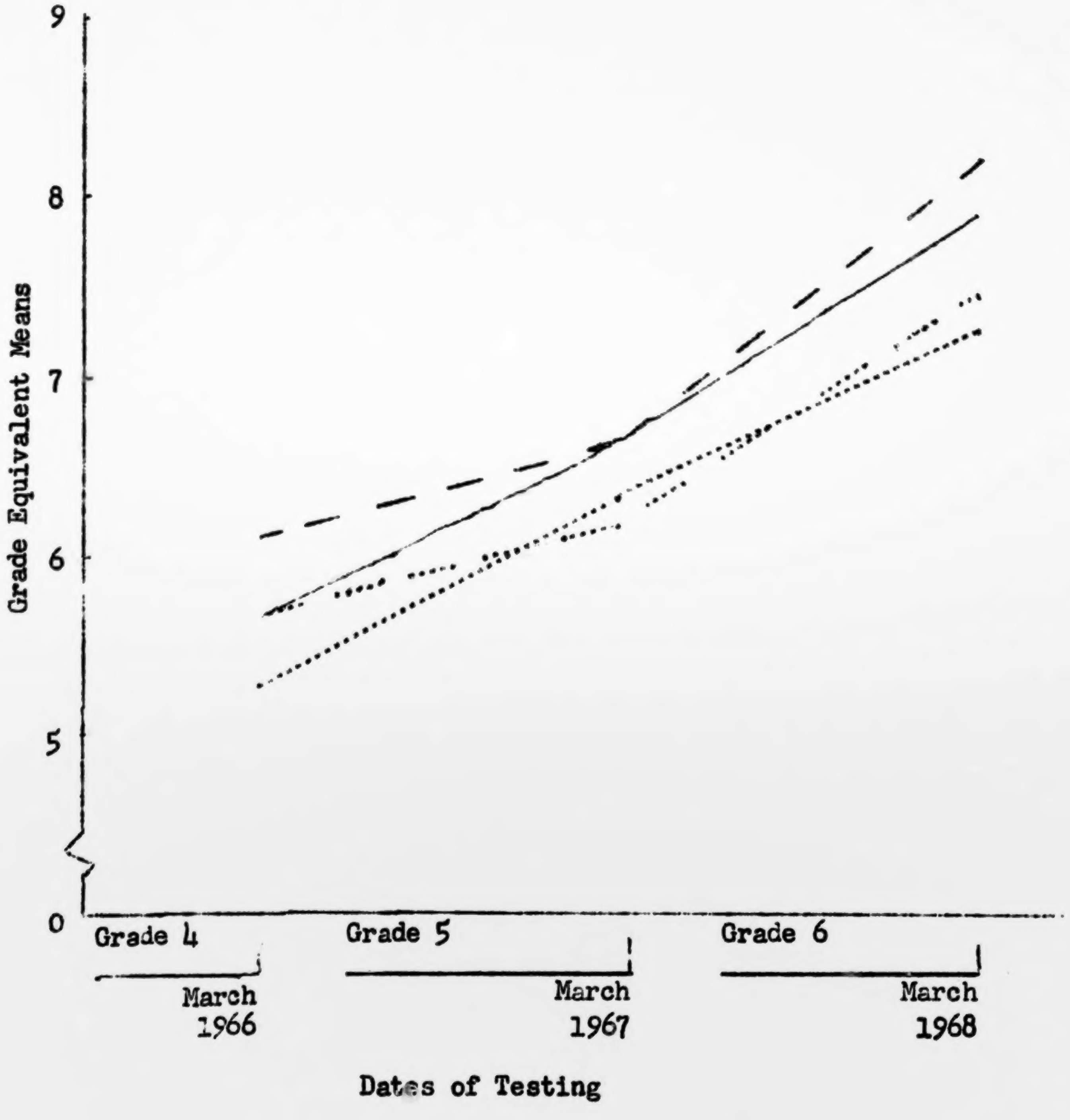


Figure A-2 ITBS Reading Comprehension Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six.

·························· Boys - Individualized
———— Girls - Individualized
···· ····· ···· Boys - Departmentalized
— — — — Girls - Departmentalized

TABLE A-3-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS LANGUAGE SKILLS SCORES

INDIVIDUALIZED DEPARTMENTALIZED

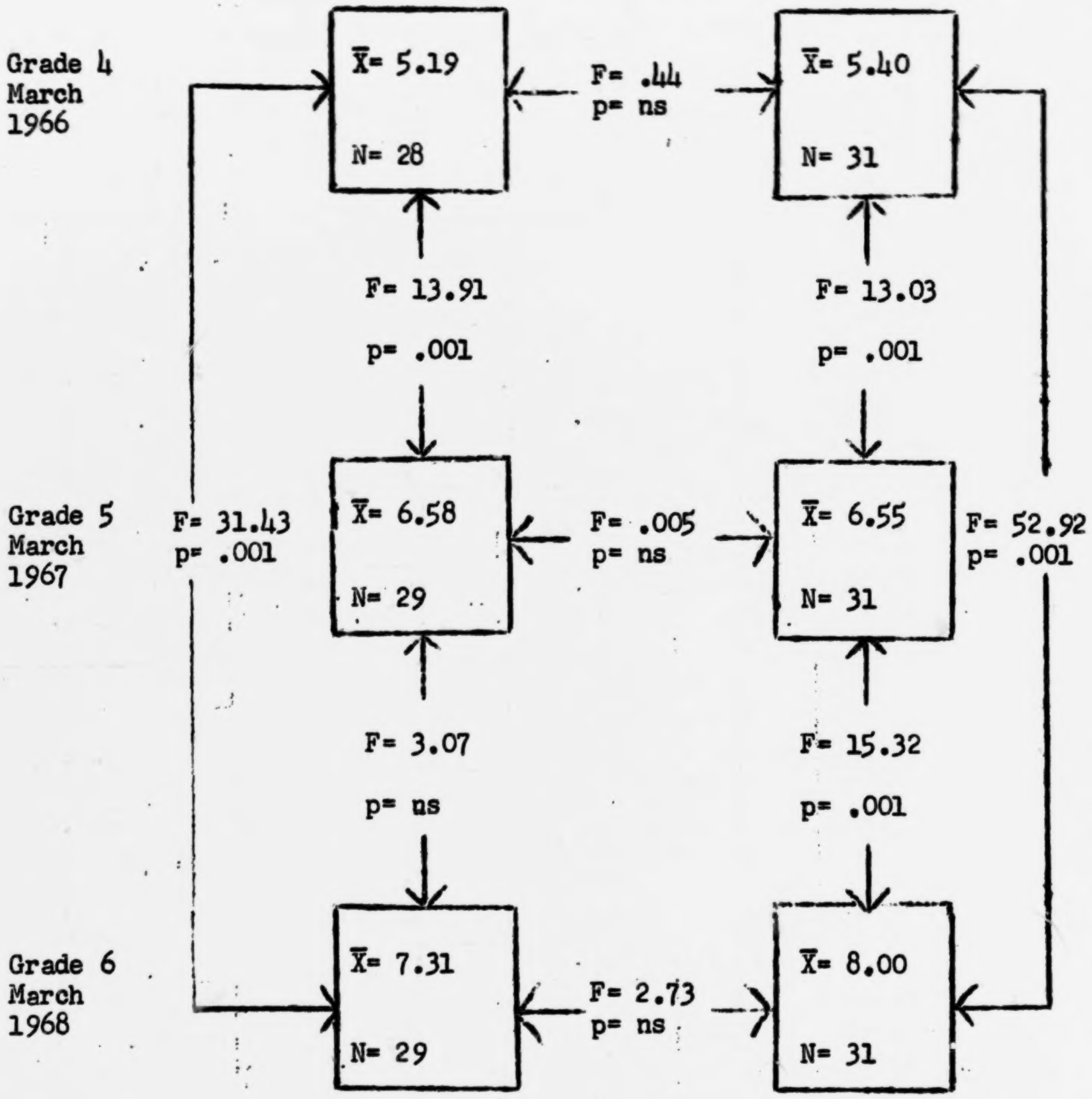
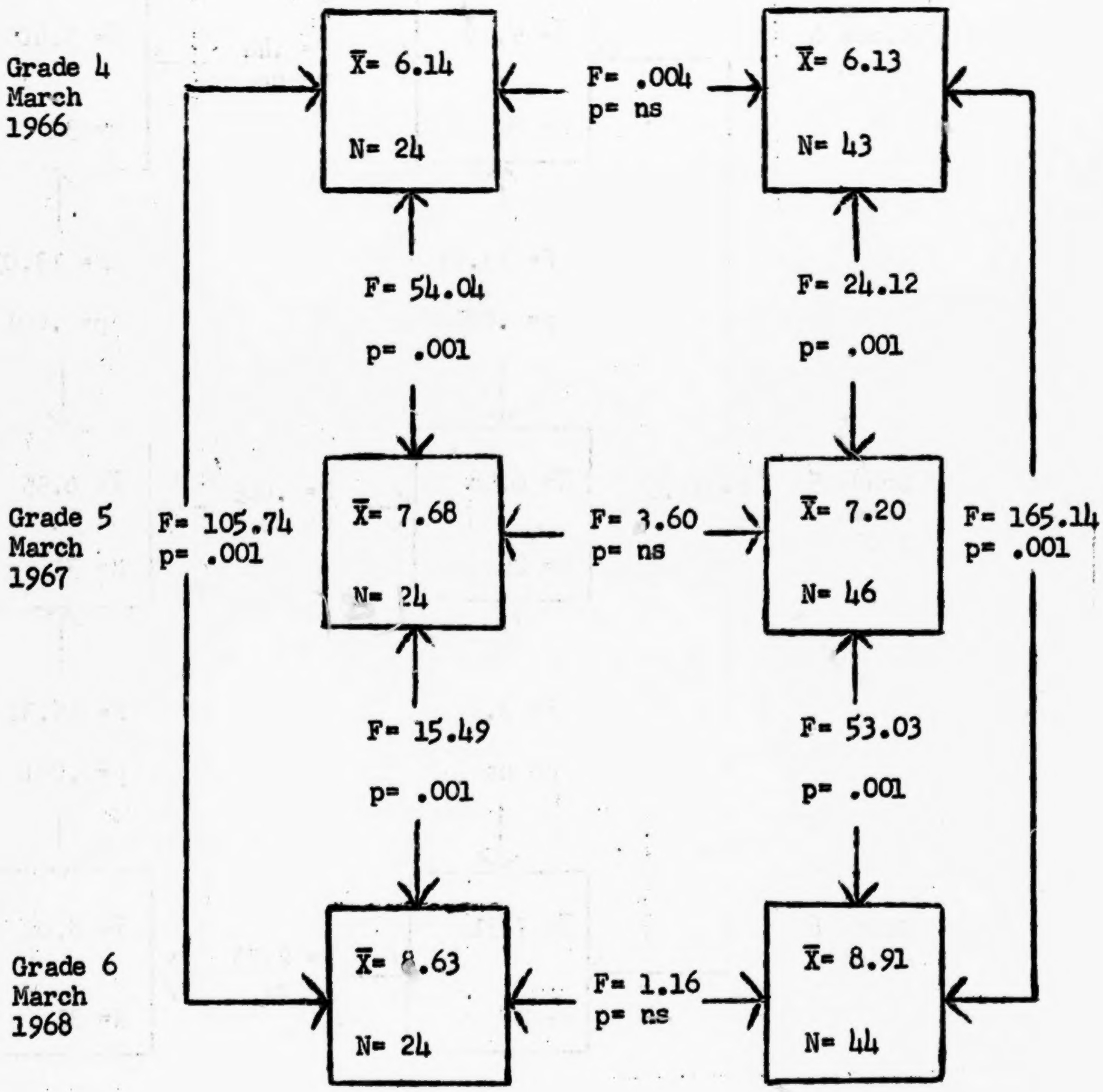

Grade 4
March
1966
X̄= 5.19
N= 28
F= .44
p= ns
X̄= 5.40
N= 31
F= 13.91
p= .001
F= 13.03
p= .001
Grade 5
March
1967
F= 31.43
p= .001
X̄= 6.58
N= 29
F= .005
p= ns
X̄= 6.55
N= 31
F= 52.92
p= .001
F= 3.07
p= ns
F= 15.32
p= .001
Grade 6
March
1968
X̄= 7.31
N= 29
F= 2.73
p= ns
X̄= 8.00
N= 31

TABLE A-3-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBE LANGUAGE SKILLS SCORES



		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 6.14 N= 24	F= .004 p= ns	$\bar{X}$= 6.13 N= 43	
		F= 54.04 p= .001		F= 24.12 p= .001	
Grade 5 March 1967	F= 105.74 p= .001	$\bar{X}$= 7.68 N= 24	F= 3.60 p= ns	$\bar{X}$= 7.20 N= 46	F= 165.14 p= .001
		F= 15.49 p= .001		F= 53.03 p= .001	
Grade 6 March 1968		$\bar{X}$= 8.63 N= 24	F= 1.16 p= ns	$\bar{X}$= 8.91 N= 44	

FIGURE A-3

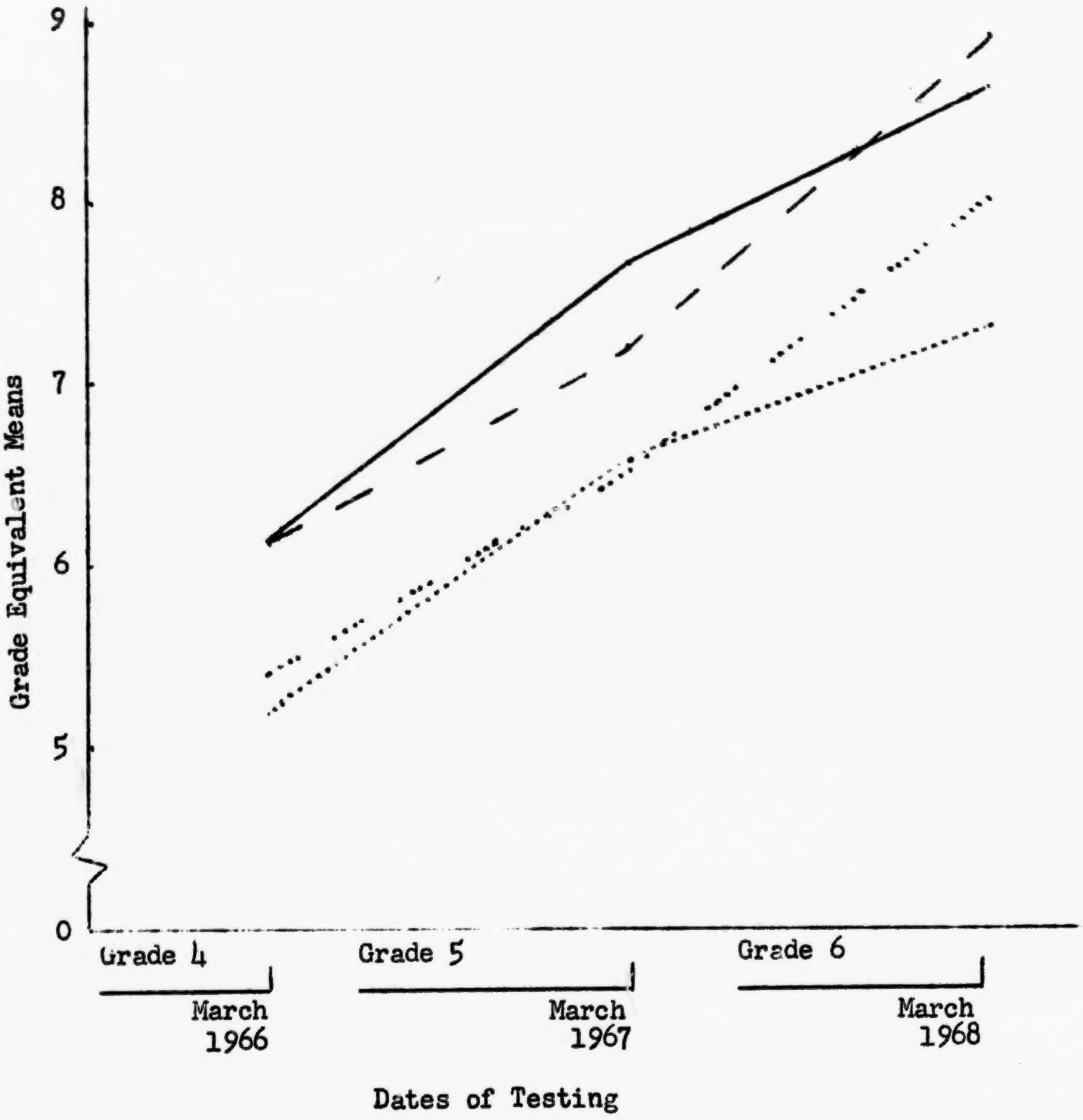


Figure A-3 ITBS Language Skills

.... Boys - Individualized ———— Girls - Individualized
.... Boys - Departmentalized — — — — Girls - Departmentalized

TABLE A-4-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS WORK-STUDY SKILLS SCORES

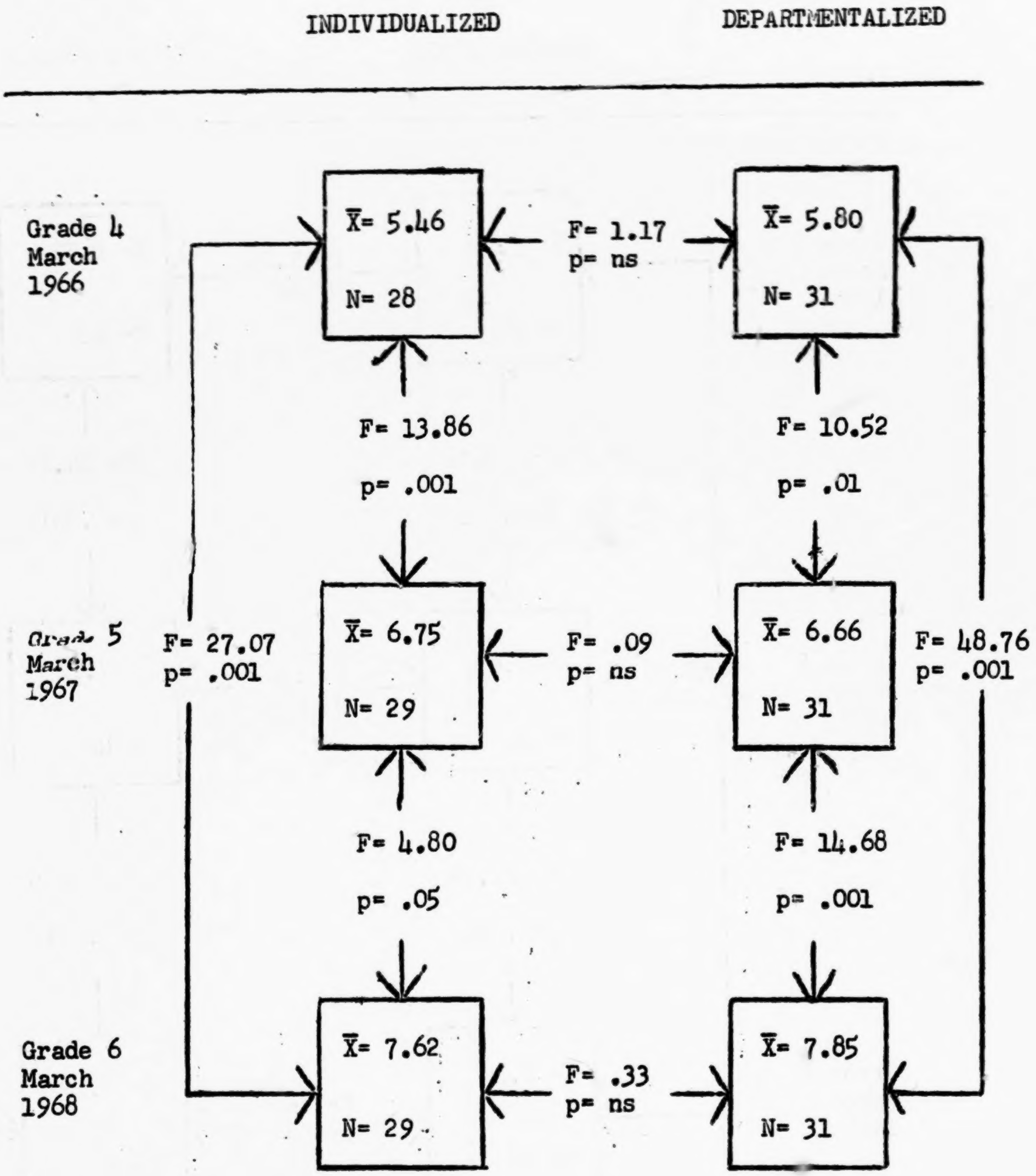

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
$\bar{X}$= 5.46
N= 28
F= 1.17
p= ns
$\bar{X}$= 5.80
N= 31
F= 13.86
p= .001
F= 10.52
p= .01
Grade 5
March
1967
F= 27.07
p= .001
$\bar{X}$= 6.75
N= 29
F= .09
p= ns
$\bar{X}$= 6.66
N= 31
F= 48.76
p= .001
F= 4.80
p= .05
F= 14.68
p= .001
Grade 6
March
1968
$\bar{X}$= 7.62
N= 29
F= .33
p= ns
$\bar{X}$= 7.85
N= 31

TABLE A-4-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS WORK-STUDY SKILLS SCORES

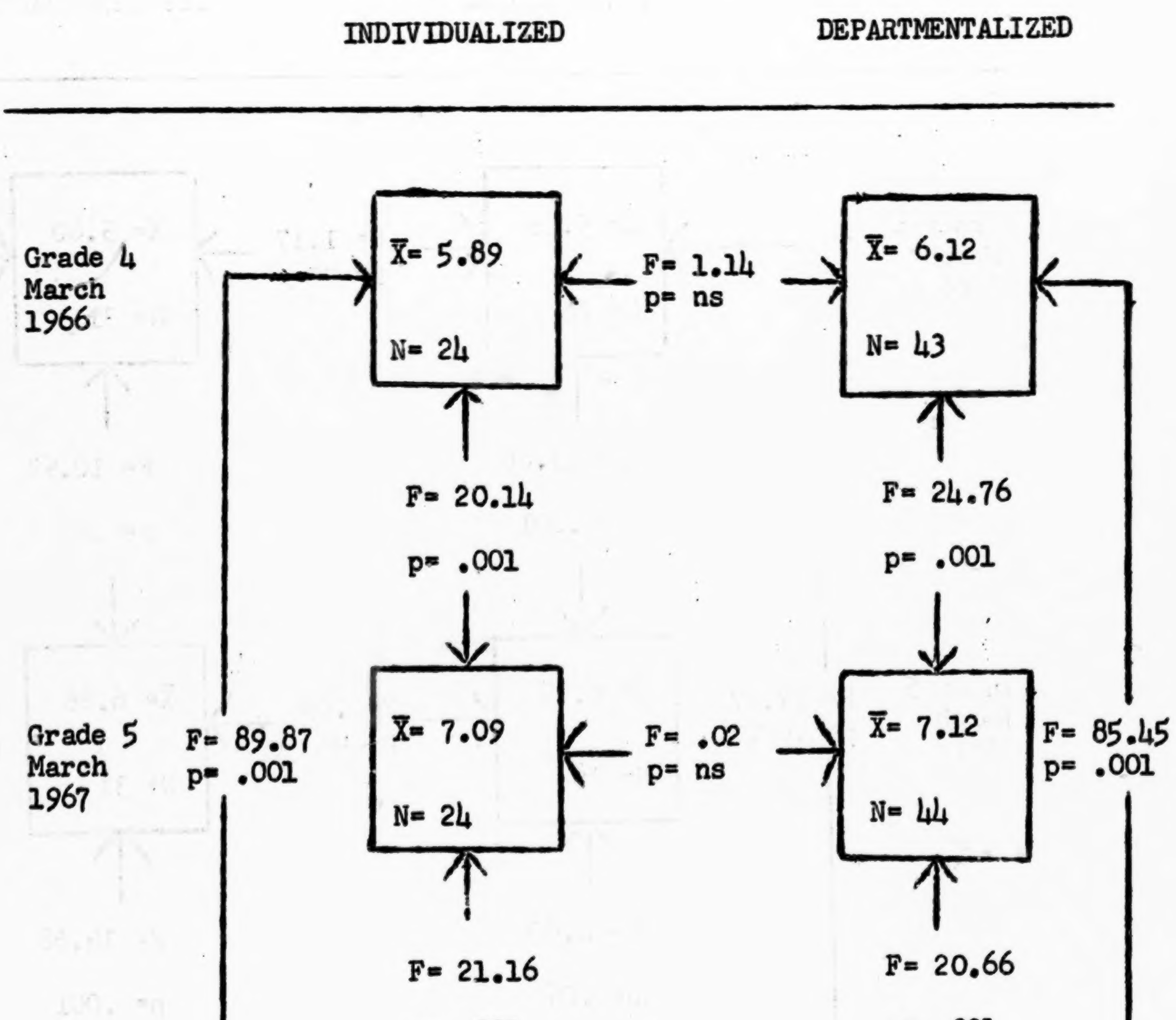

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
$\bar{X}$= 5.89
N= 24
F= 1.14
p= ns
$\bar{X}$= 6.12
N= 43
F= 20.14
p= .001
F= 24.76
p= .001
Grade 5 March 1967
F= 89.87
p= .001
$\bar{X}$= 7.09
N= 24
F= .02
p= ns
$\bar{X}$= 7.12
N= 44
F= 85.45
p= .001
F= 21.16
p= .001
F= 20.66
p= .001
Grade 6 March 1968
$\bar{X}$= 8.35
N= 24
F= .30
p= ns
$\bar{X}$= 8.19
N= 44

FIGURE A-4

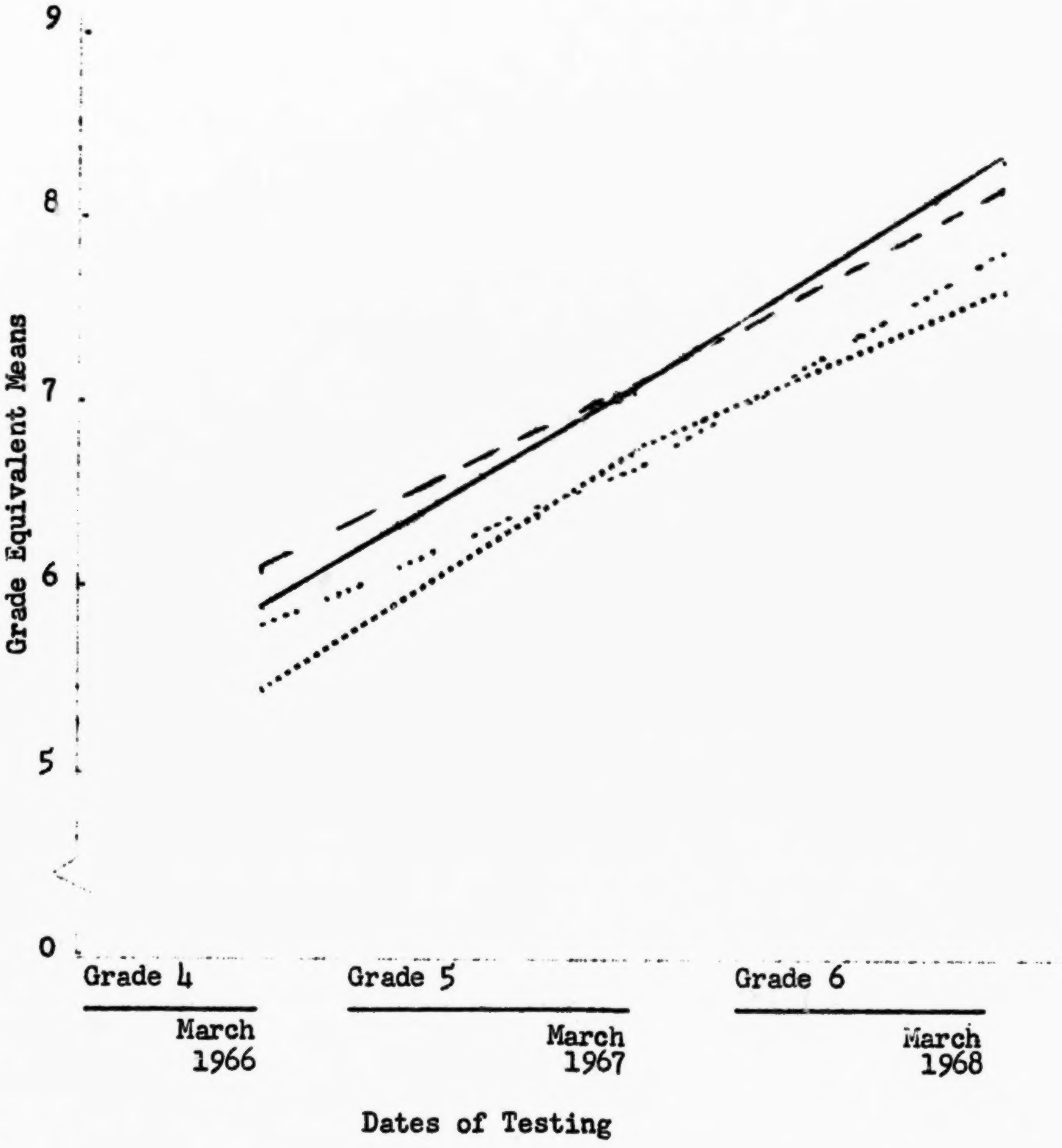


Figure A-4 ITBS Work-Study Skills

.... Boys - Individualized
.... Boys - Departmentalized
________ Girls - Individualized
— — — Girls - Departmentalized

TABLE A-5-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS ARITHMETIC SKILLS SCORES

INDIVIDUALIZED DEPARTMENTALIZED

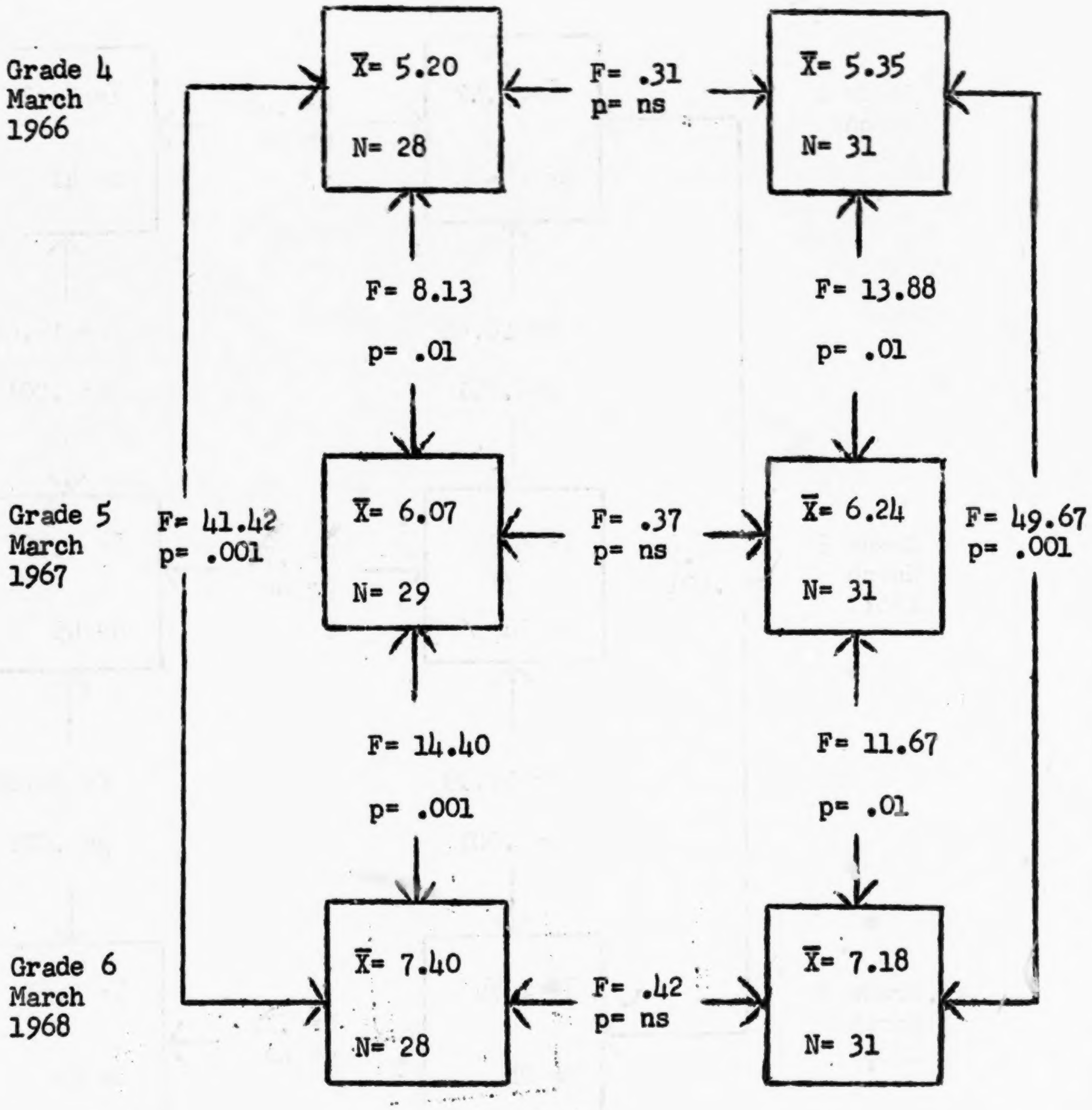
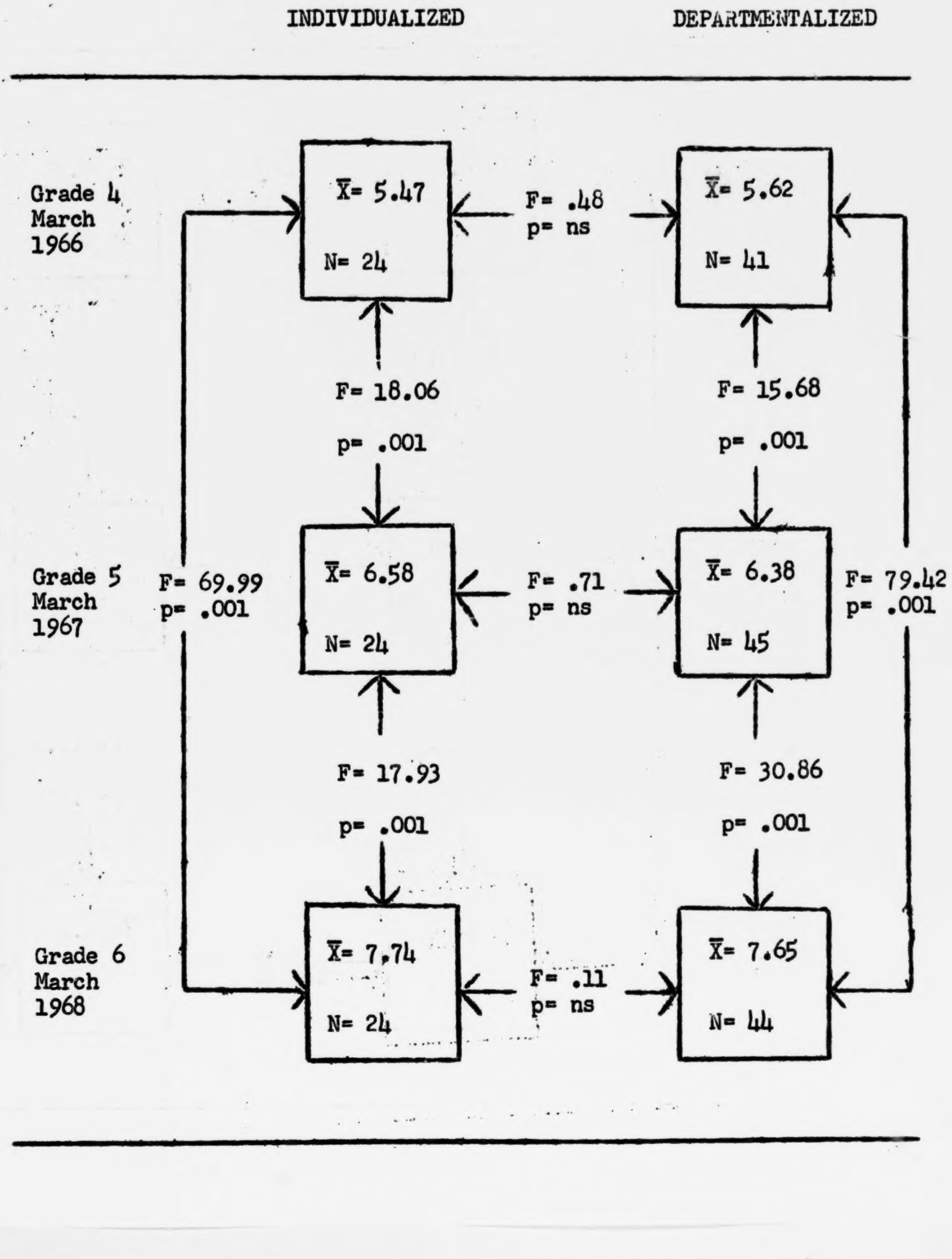

Grade 4
March
1966
X̄= 5.20
N= 28
F= .31
p= ns
X̄= 5.35
N= 31
F= 8.13
p= .01
F= 13.88
p= .01
Grade 5
March
1967
F= 41.42
p= .001
X̄= 6.07
N= 29
F= .37
p= ns
X̄= 6.24
N= 31
F= 49.67
p= .001
F= 14.40
p= .001
F= 11.67
p= .01
Grade 6
March
1968
X̄= 7.40
N= 28
F= .42
p= ns
X̄= 7.18
N= 31

TABLE A-5-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS ARITHMETIC SKILLS SCORES



		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\overline{X}$= 5.47 N= 24	F= .48 p= ns	$\overline{X}$= 5.62 N= 41	
		F= 18.06 p= .001		F= 15.68 p= .001	
Grade 5 March 1967	F= 69.99 p= .001	$\overline{X}$= 6.58 N= 24	F= .71 p= ns	$\overline{X}$= 6.38 N= 45	F= 79.42 p= .001
		F= 17.93 p= .001		F= 30.86 p= .001	
Grade 6 March 1968		$\overline{X}$= 7.74 N= 24	F= .11 p= ns	$\overline{X}$= 7.65 N= 44	

FIGURE A-5

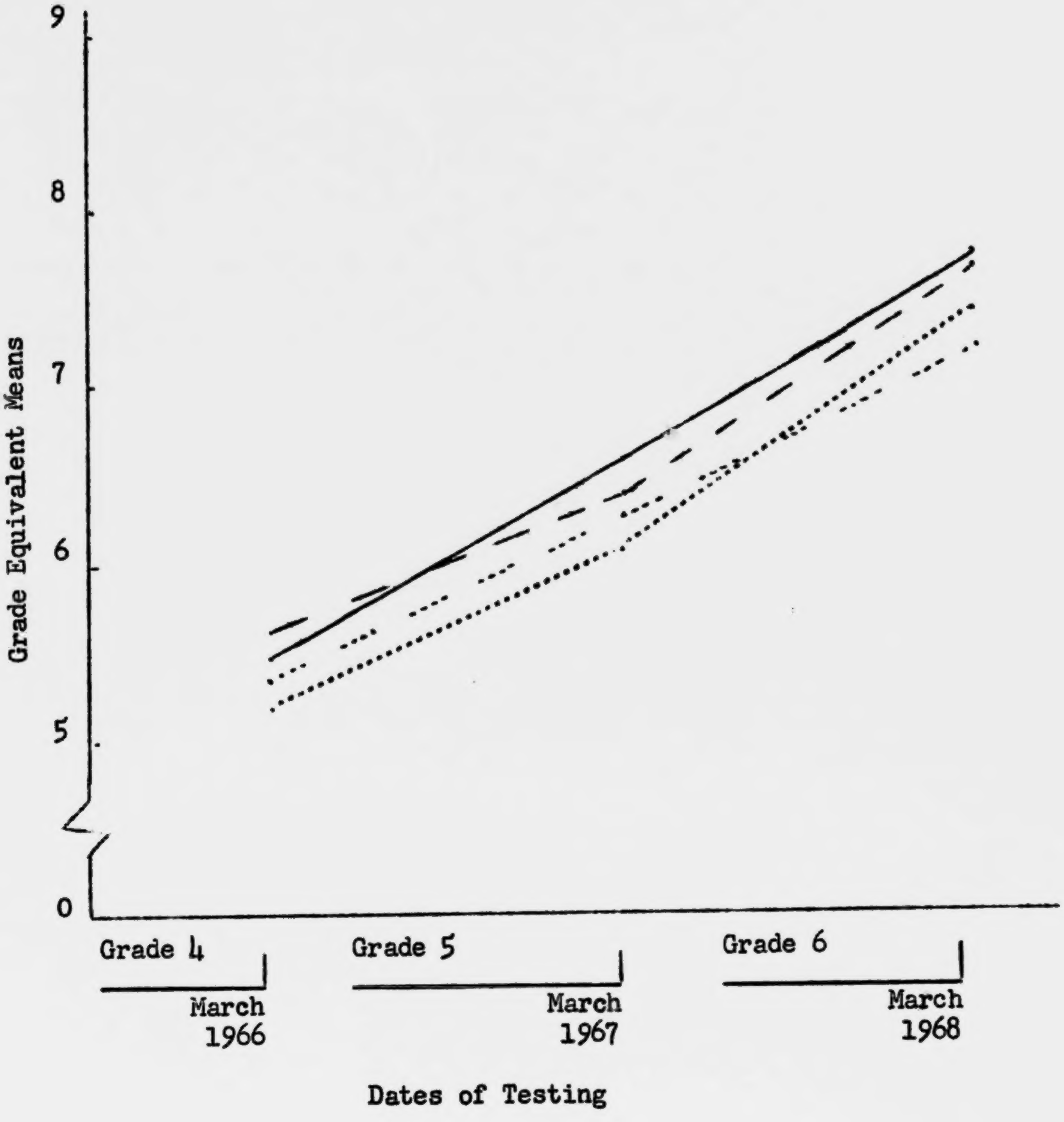


Figure A-5 ITBS Arithmetic Skills

··················Boys - Individualized ————————Girls - Individualized
.... Boys - Departmentalized — — — —Girls - Departmentalized

TABLE A-6-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS COMPOSITE TOTAL SCORES

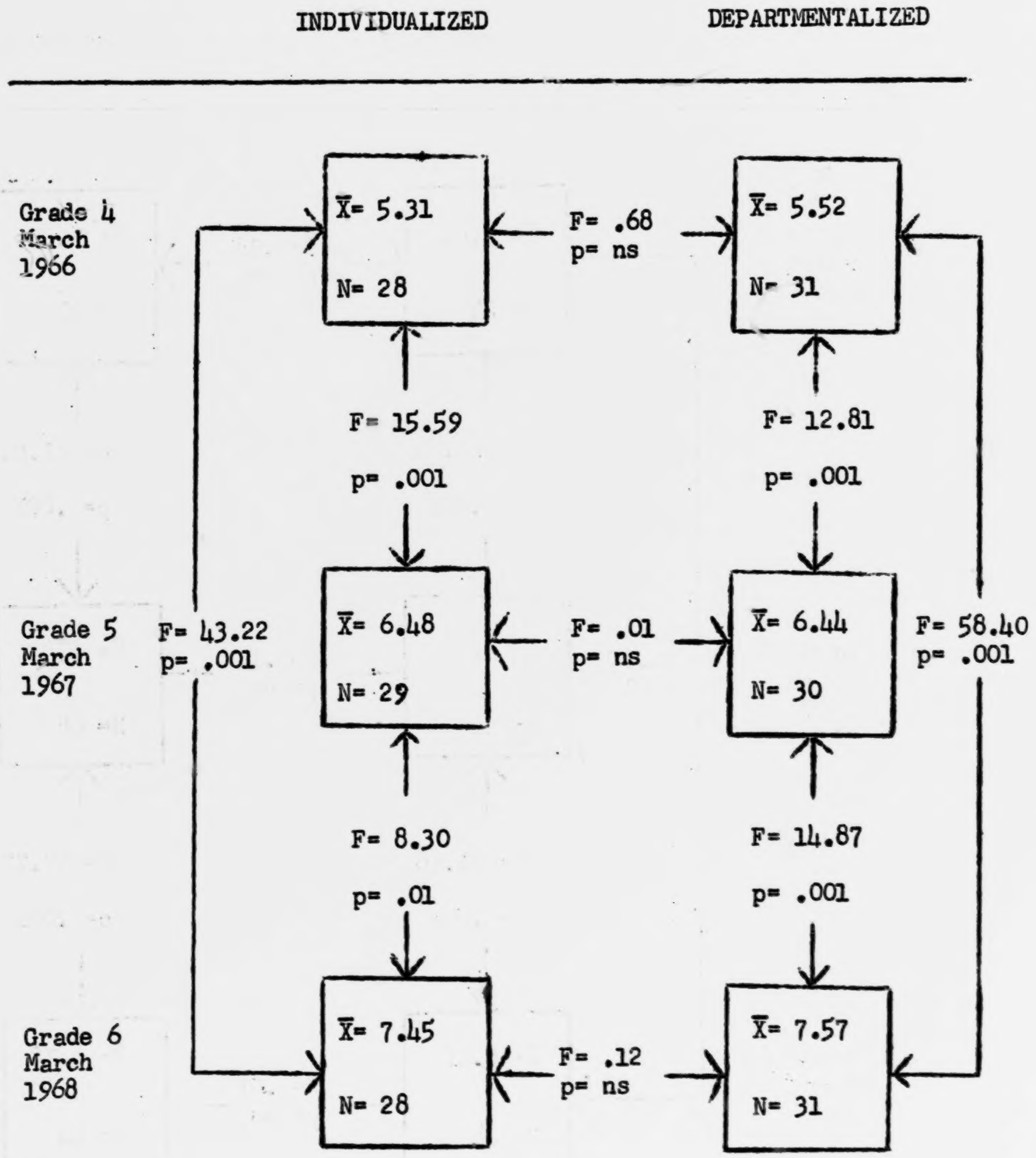

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
$\bar{X}$= 5.31
N= 28
F= .68
p= ns
$\bar{X}$= 5.52
N= 31
F= 15.59
p= .001
F= 12.81
p= .001
Grade 5
March
1967
F= 43.22
p= .001
$\bar{X}$= 6.48
N= 29
F= .01
p= ns
$\bar{X}$= 6.44
N= 30
F= 58.40
p= .001
F= 8.30
p= .01
F= 14.87
p= .001
Grade 6
March
1968
$\bar{X}$= 7.45
N= 28
F= .12
p= ns
$\bar{X}$= 7.57
N= 31

TABLE A-6-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON ITBS COMPOSITE TOTAL SCORES

INDIVIDUALIZED DEPARTMENTALIZED

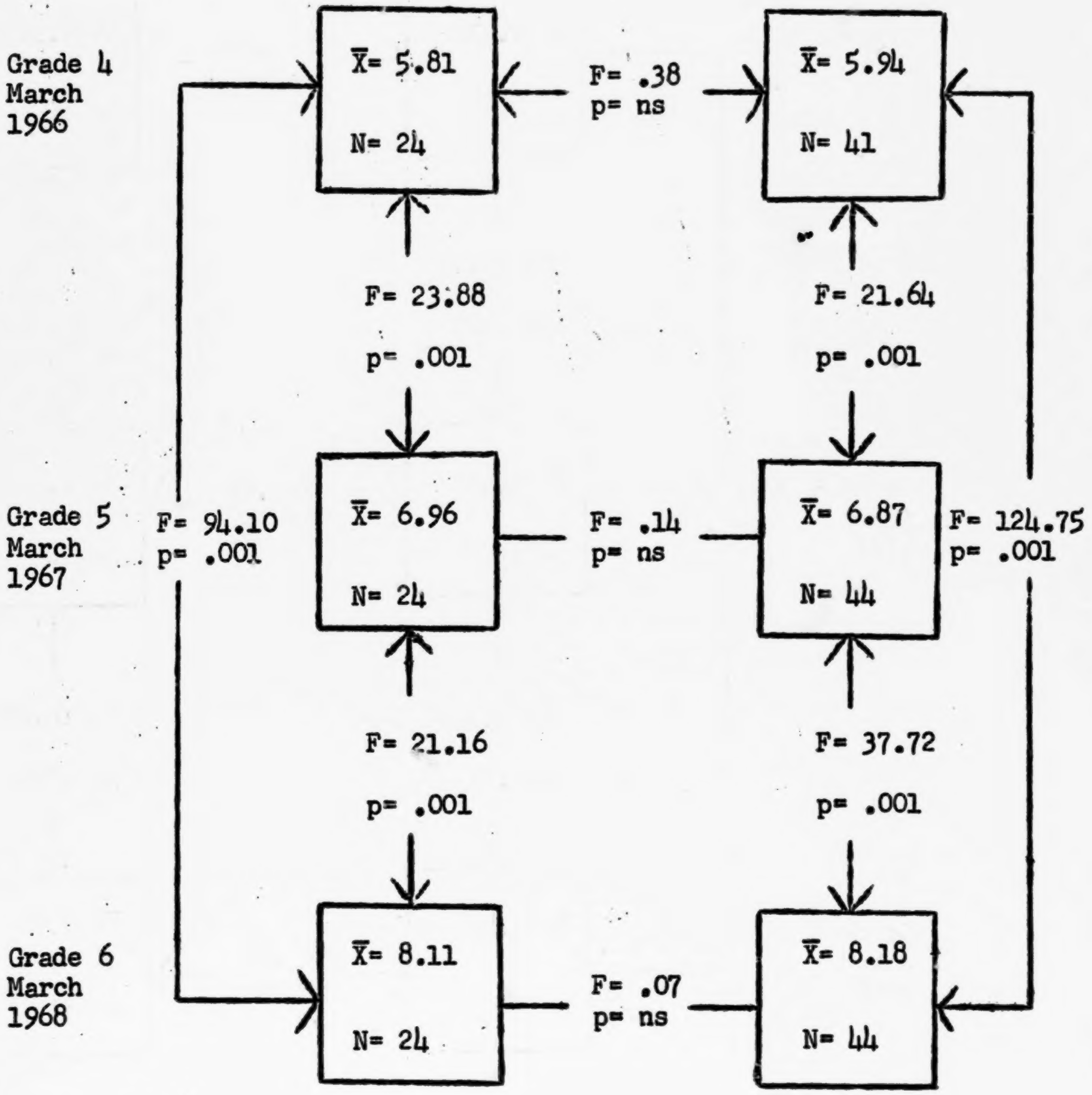

Grade 4
March
1966
$\overline{X}$= 5.81
N= 24
F= .38
p= ns
$\overline{X}$= 5.94
N= 41
F= 23.88
p= .001
F= 21.64
p= .001
Grade 5
March
1967
F= 94.10
p= .001
$\overline{X}$= 6.96
N= 24
F= .14
p= ns
$\overline{X}$= 6.87
N= 44
F= 124.75
p= .001
F= 21.16
p= .001
F= 37.72
p= .001
Grade 6
March
1968
$\overline{X}$= 8.11
N= 24
F= .07
p= ns
$\overline{X}$= 8.18
N= 44

FIGURE A-6

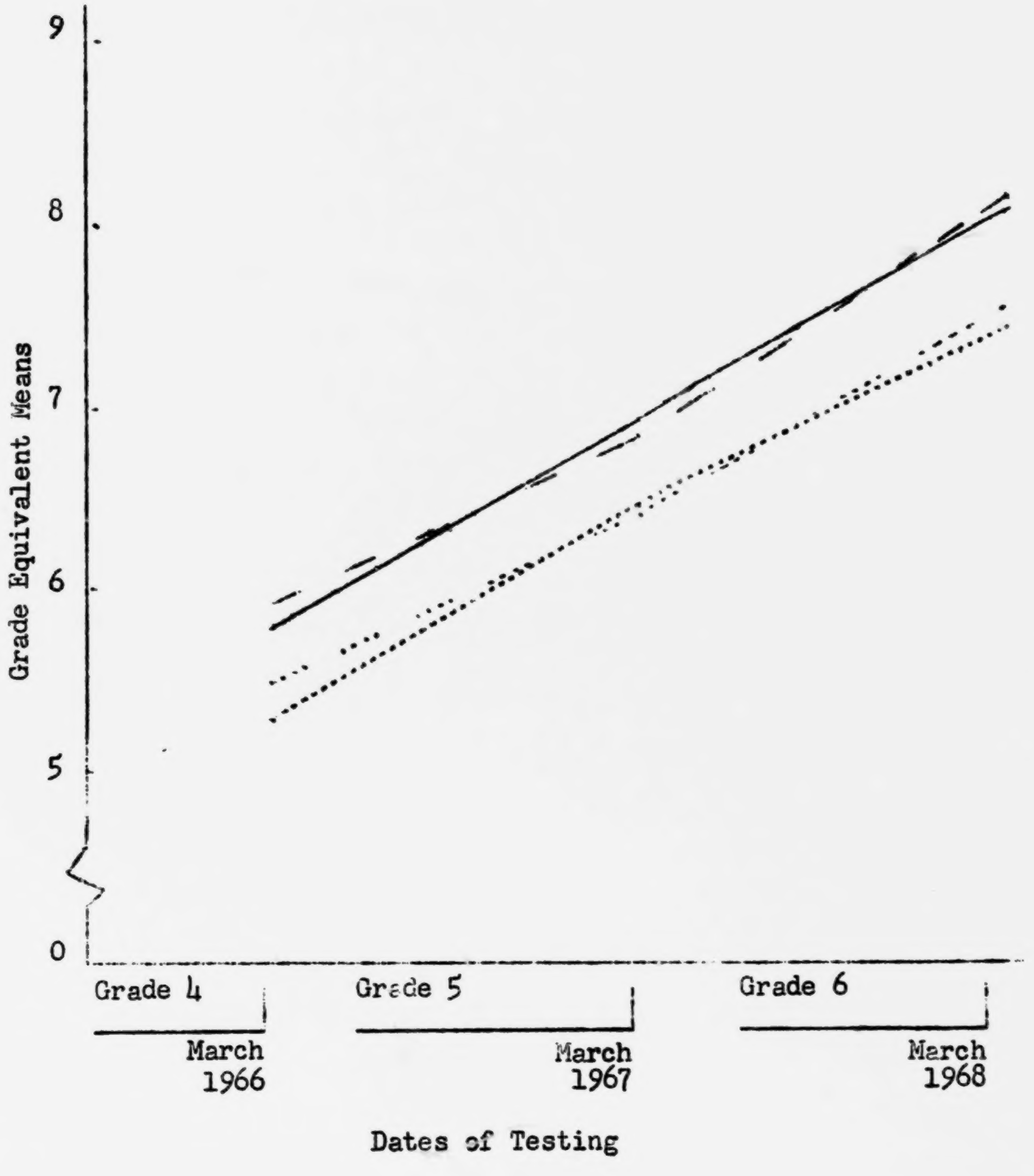


Figure A-6 ITBS Composite Total Mean Scores

TABLE A-7-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: PHYSICAL ABILITIES SCORES

INDIVIDUALIZED DEPARTMENTALIZED

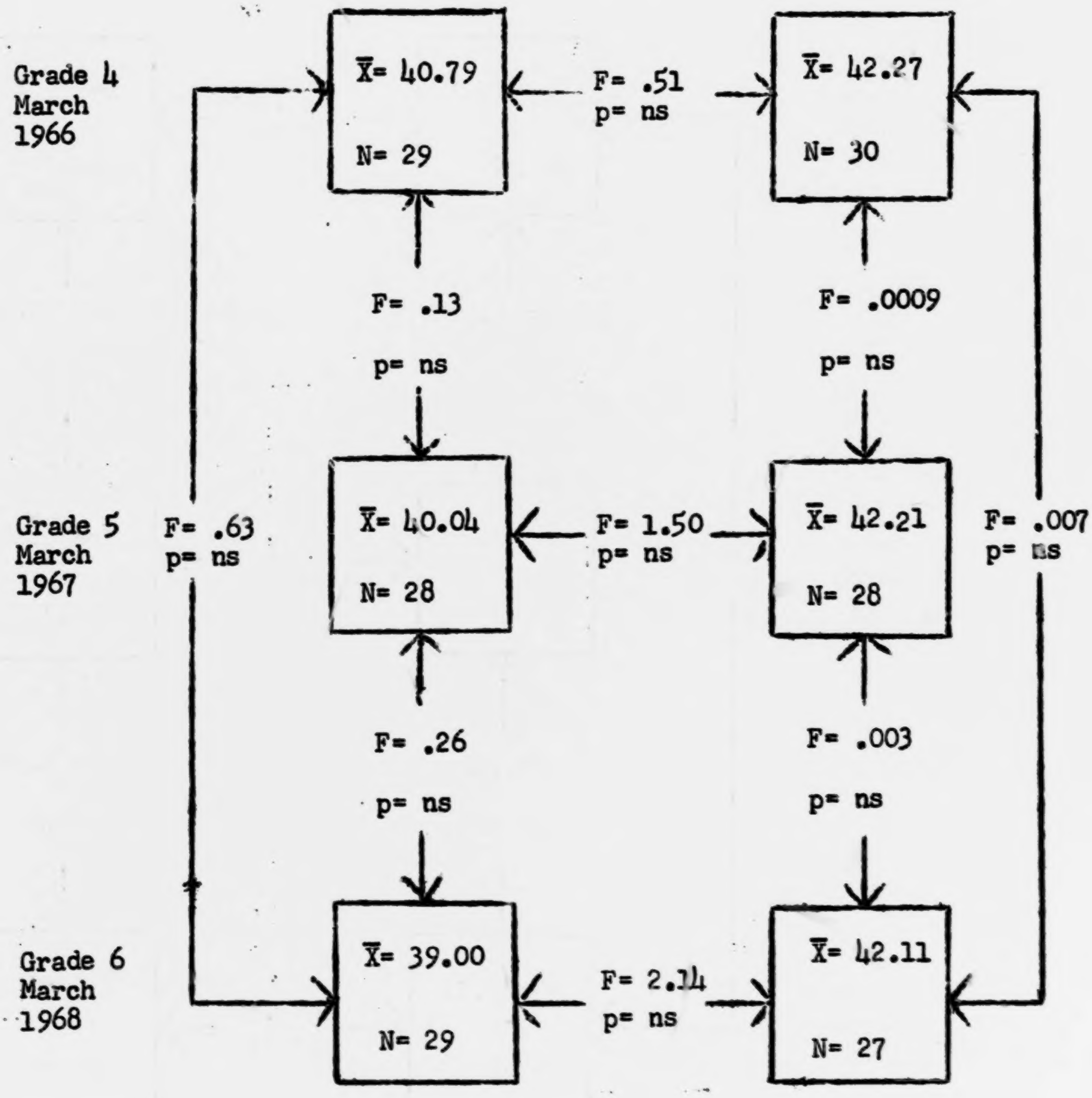

Grade 4
March
1966
$\bar{X}$= 40.79
N= 29
F= .51
p= ns
$\bar{X}$= 42.27
N= 30
F= .13
p= ns
F= .0009
p= ns
Grade 5
March
1967
F= .63
p= ns
$\bar{X}$= 40.04
N= 28
F= 1.50
p= ns
$\bar{X}$= 42.21
N= 28
F= .007
p= ns
F= .26
p= ns
F= .003
p= ns
Grade 6
March
1968
$\bar{X}$= 39.00
N= 29
F= 2.14
p= ns
$\bar{X}$= 42.11
N= 27

TABLE A-7-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: PHYSICAL ABILITIES SCORES

INDIVIDUALIZED DEPARTMENTALIZED

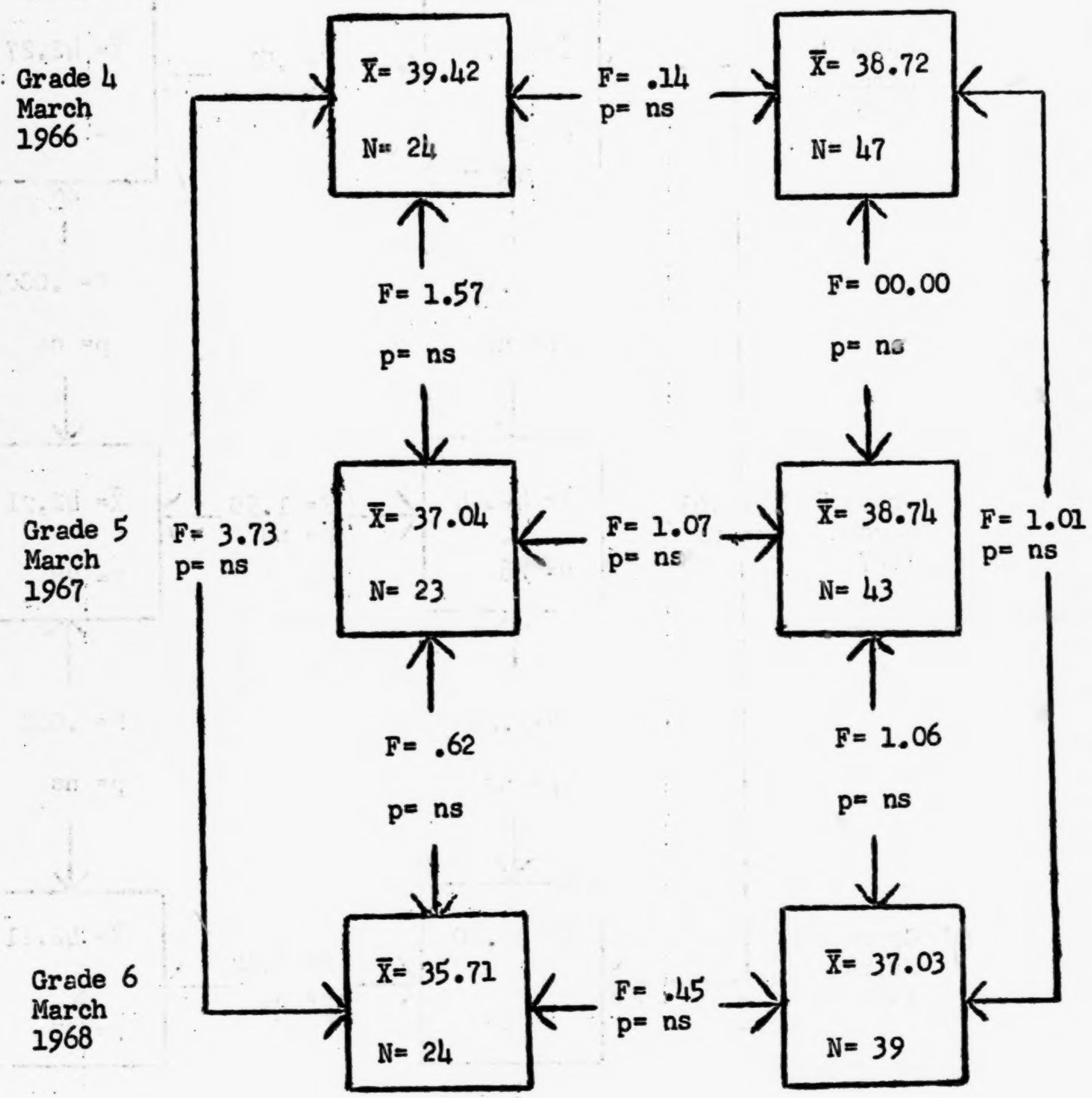

Grade 4
March
1966
X̄= 39.42
N= 24
F= .14
p= ns
X̄= 38.72
N= 47
F= 1.57
p= ns
F= 00.00
p= ns
Grade 5
March
1967
F= 3.73
p= ns
X̄= 37.04
N= 23
F= 1.07
p= ns
X̄= 38.74
N= 43
F= 1.01
p= ns
F= .62
p= ns
F= 1.06
p= ns
Grade 6
March
1968
X̄= 35.71
N= 24
F= .45
p= ns
X̄= 37.03
N= 39

FIGURE A-7

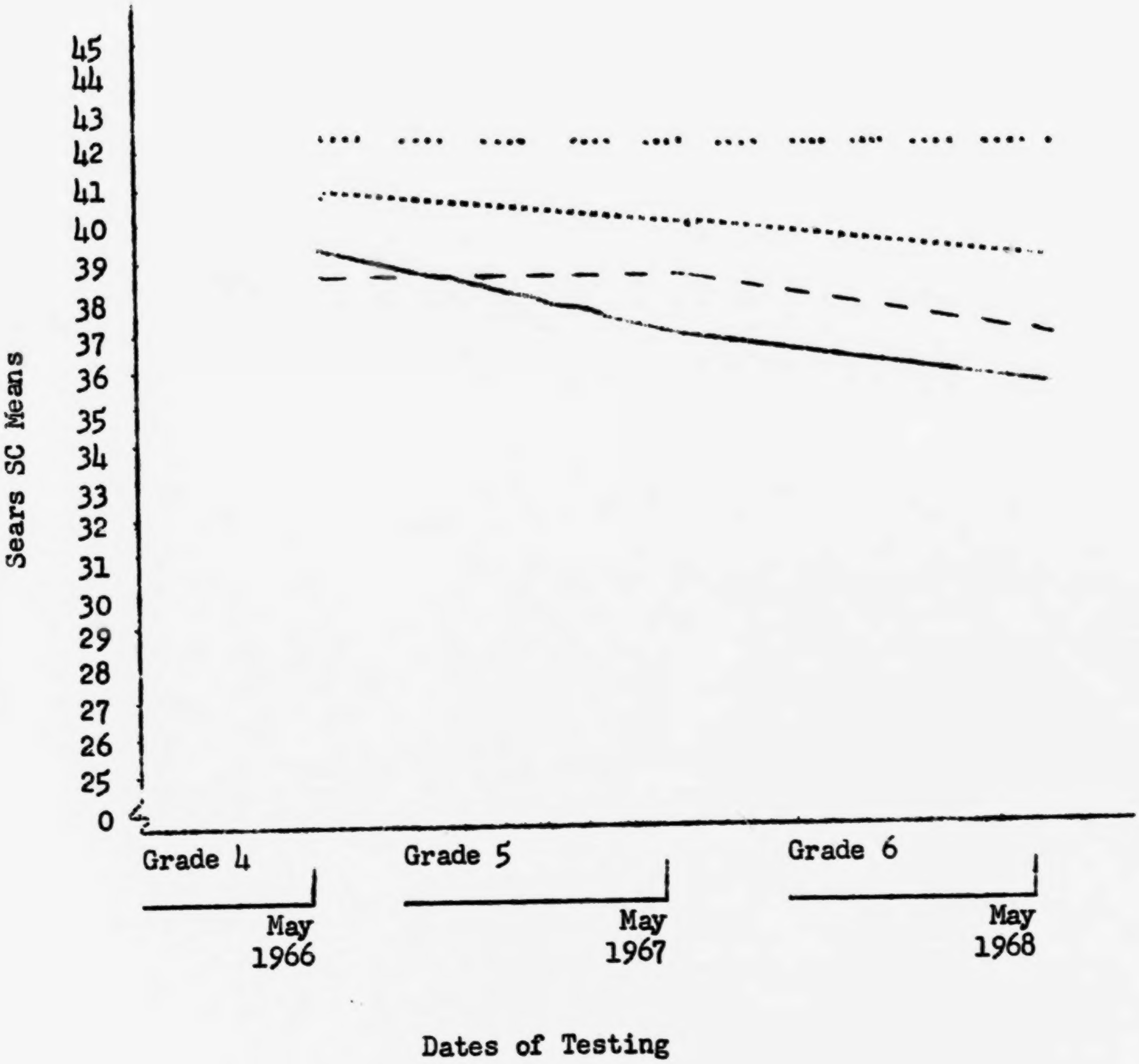


Figure A-7 Sears Self-Concept: Physical Abilities Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

.......................Boys - Individualized ————— Girls - Individualized
.... Boys - Departmentalized — — — Girls - Departmentalized

TABLE A-8-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: MENTAL ABILITIES SCORES

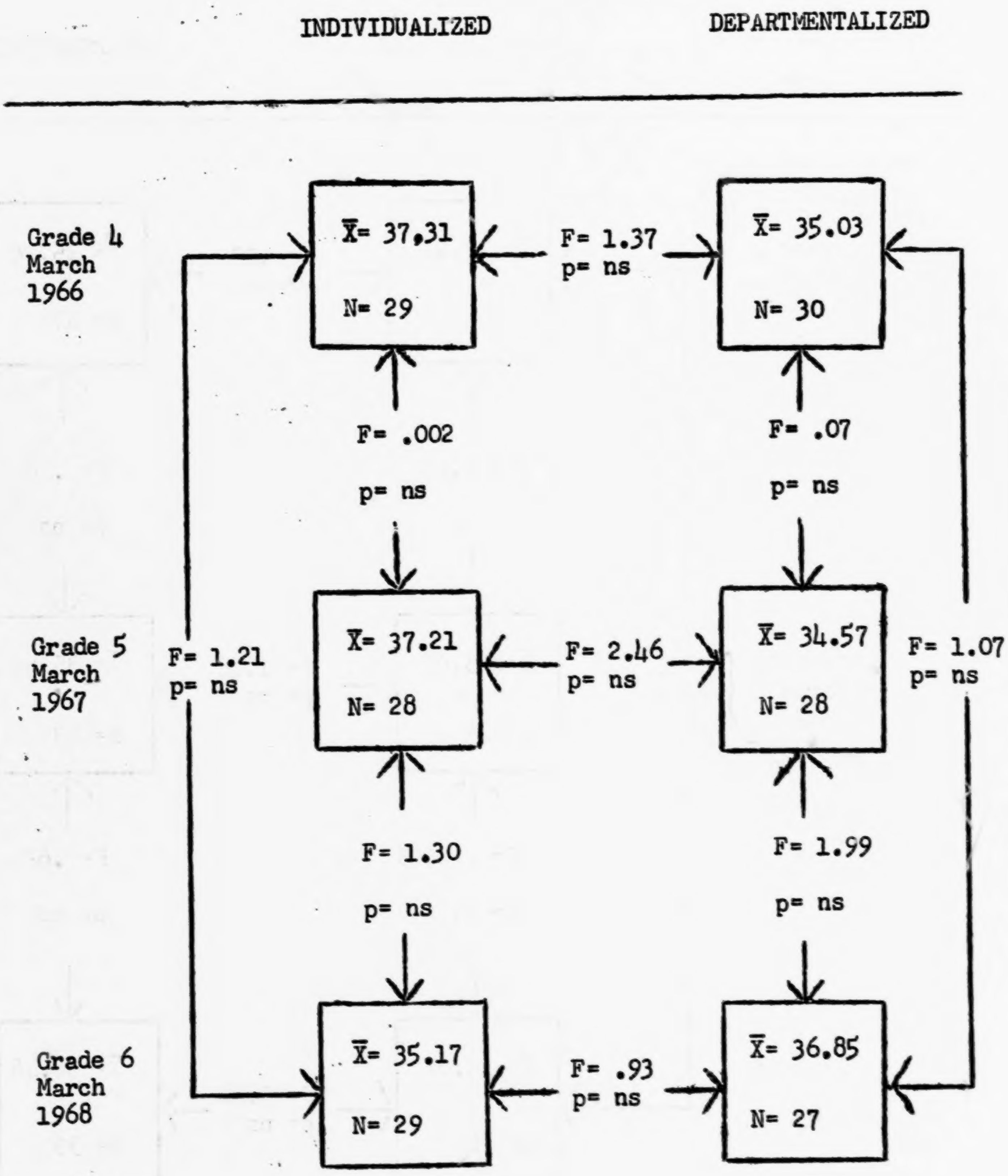

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
$\bar{X}$= 37.31
N= 29
F= 1.37
p= ns
$\bar{X}$= 35.03
N= 30
F= .002
p= ns
F= .07
p= ns
Grade 5
March
1967
F= 1.21
p= ns
$\bar{X}$= 37.21
N= 28
F= 2.46
p= ns
$\bar{X}$= 34.57
N= 28
F= 1.07
p= ns
F= 1.30
p= ns
F= 1.99
p= ns
Grade 6
March
1968
$\bar{X}$= 35.17
N= 29
F= .93
p= ns
$\bar{X}$= 36.85
N= 27

TABLE A-8-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: MENTAL ABILITIES SCORES

		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 36.63 N= 24	F= .13 p= ns	$\bar{X}$= 35.98 N= 47	
		F= 2.16 p= ns		F= .18 p= ns	
Grade 5 March 1967	F= 2.34 p= ns	$\bar{X}$= 33.65 N= 23	F= 1.18 p= ns	$\bar{X}$= 35.40 N= 43	F= .11 p= ns
		F= .00005 p= ns		F= .62 p= ns	
Grade 6 March 1968		$\bar{X}$= 33.67 N= 24	F= 3.10 p= ns	$\bar{X}$= 36.46 N= 39	

FIGURE A-8

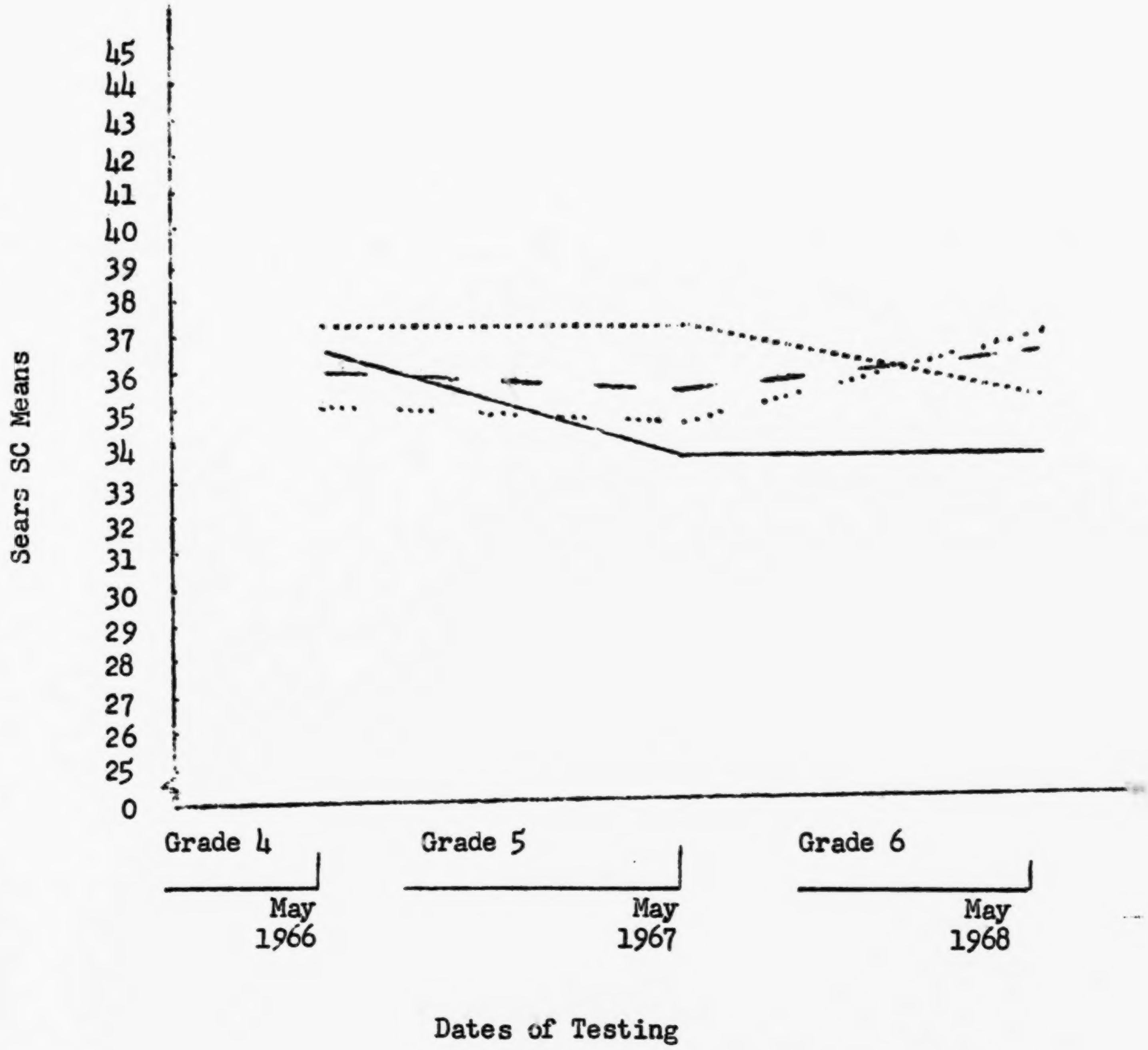
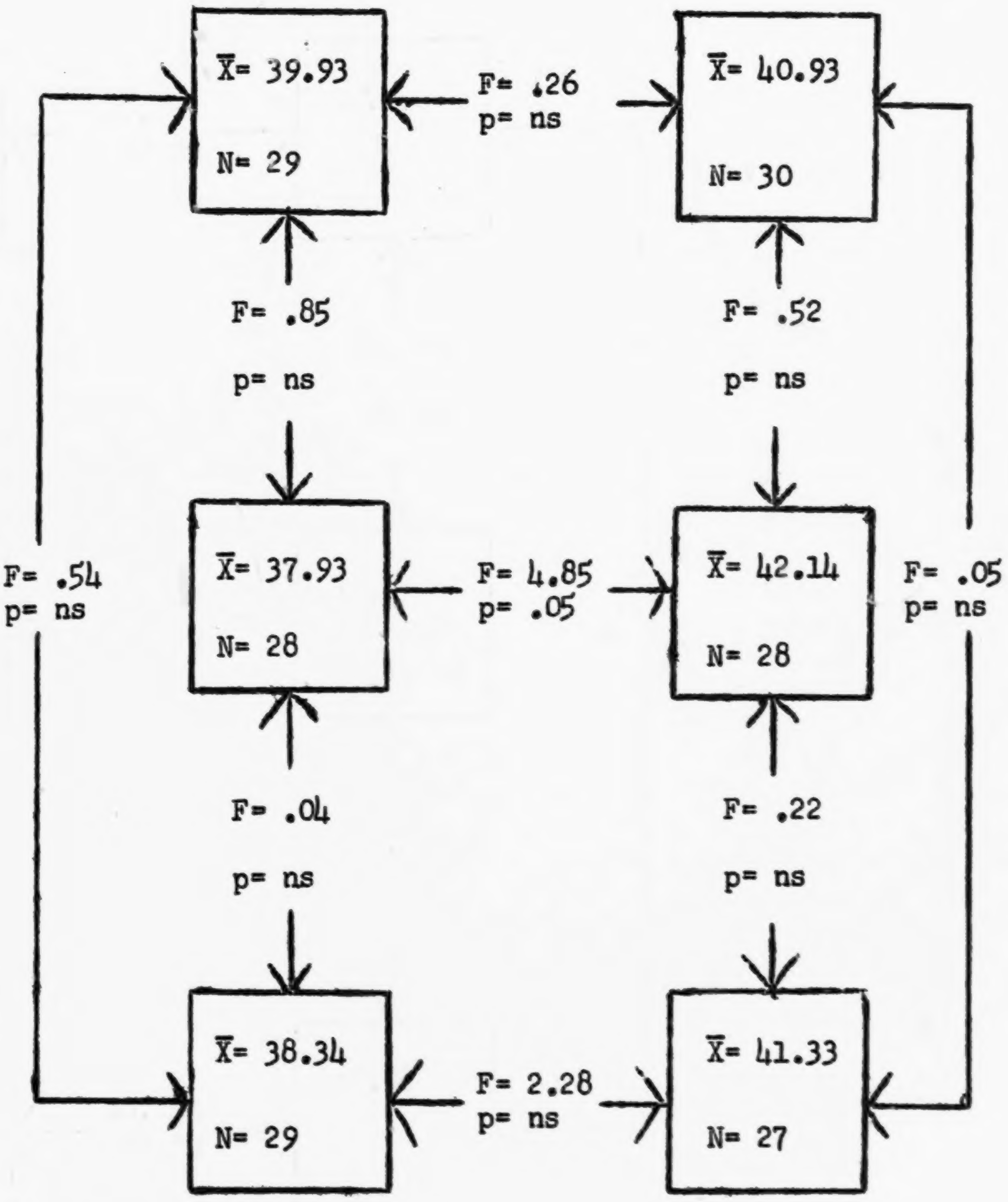


Figure A-8 Sears Self-Concept: Mental Abilities

.... Boys - Individualized   __________ Girls - Individualized
... . Boys - Departmentalized   _ _ _ Girls - Departmentalized

TABLE A-9-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: SOCIAL RELATIONS WITH BOYS SCORES



		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 39.93 N= 29	F= .26 p= ns	$\bar{X}$= 40.93 N= 30	
		F= .85 p= ns		F= .52 p= ns	
Grade 5 March 1967	F= .54 p= ns	$\bar{X}$= 37.93 N= 28	F= 4.85 p= .05	$\bar{X}$= 42.14 N= 28	F= .05 p= ns
		F= .04 p= ns		F= .22 p= ns	
Grade 6 March 1968		$\bar{X}$= 38.34 N= 29	F= 2.28 p= ns	$\bar{X}$= 41.33 N= 27	

TABLE A-9-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS
FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON
SEARS SELF-CONCEPT: SOCIAL RELATIONS WITH BOYS SCORES

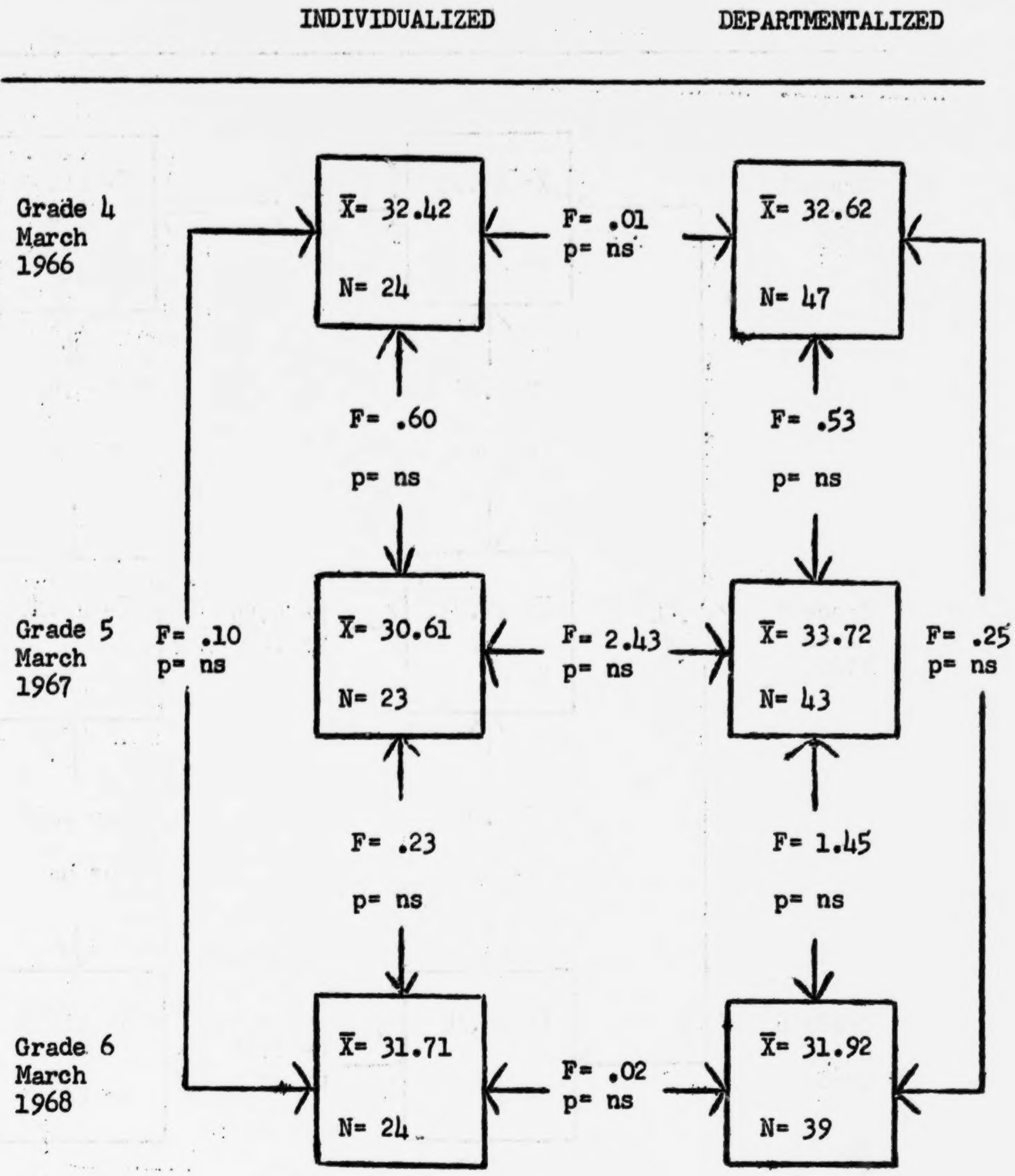

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
X̄= 32.42
N= 24
F= .01
p= ns
X̄= 32.62
N= 47
F= .60
p= ns
F= .53
p= ns
Grade 5 March 1967
F= .10
p= ns
X̄= 30.61
N= 23
F= 2.43
p= ns
X̄= 33.72
N= 43
F= .25
p= ns
F= .23
p= ns
F= 1.45
p= ns
Grade 6 March 1968
X̄= 31.71
N= 24
F= .02
p= ns
X̄= 31.92
N= 39

FIGURE A-9

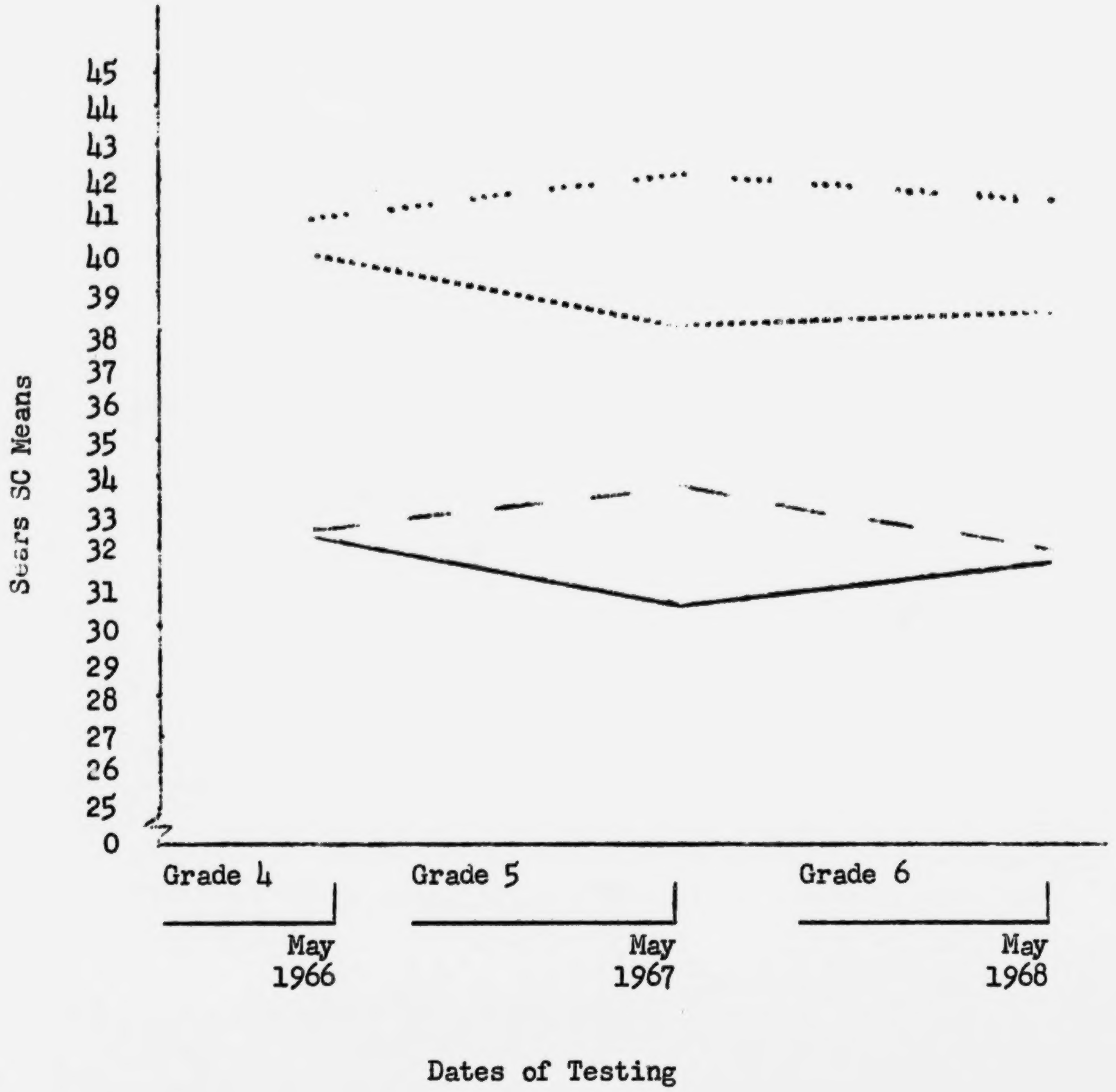


Figure A-9 Sears Self-Concept: Social Relations With Boys Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

.... Boys - Individualized ———— Girls - Individualized

.... Boys - Departmentalized — — — Girls - Departmentalized

TABLE A-10-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS
FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON
SEARS SELF-CONCEPT: SOCIAL RELATIONS WITH GIRLS SCORES

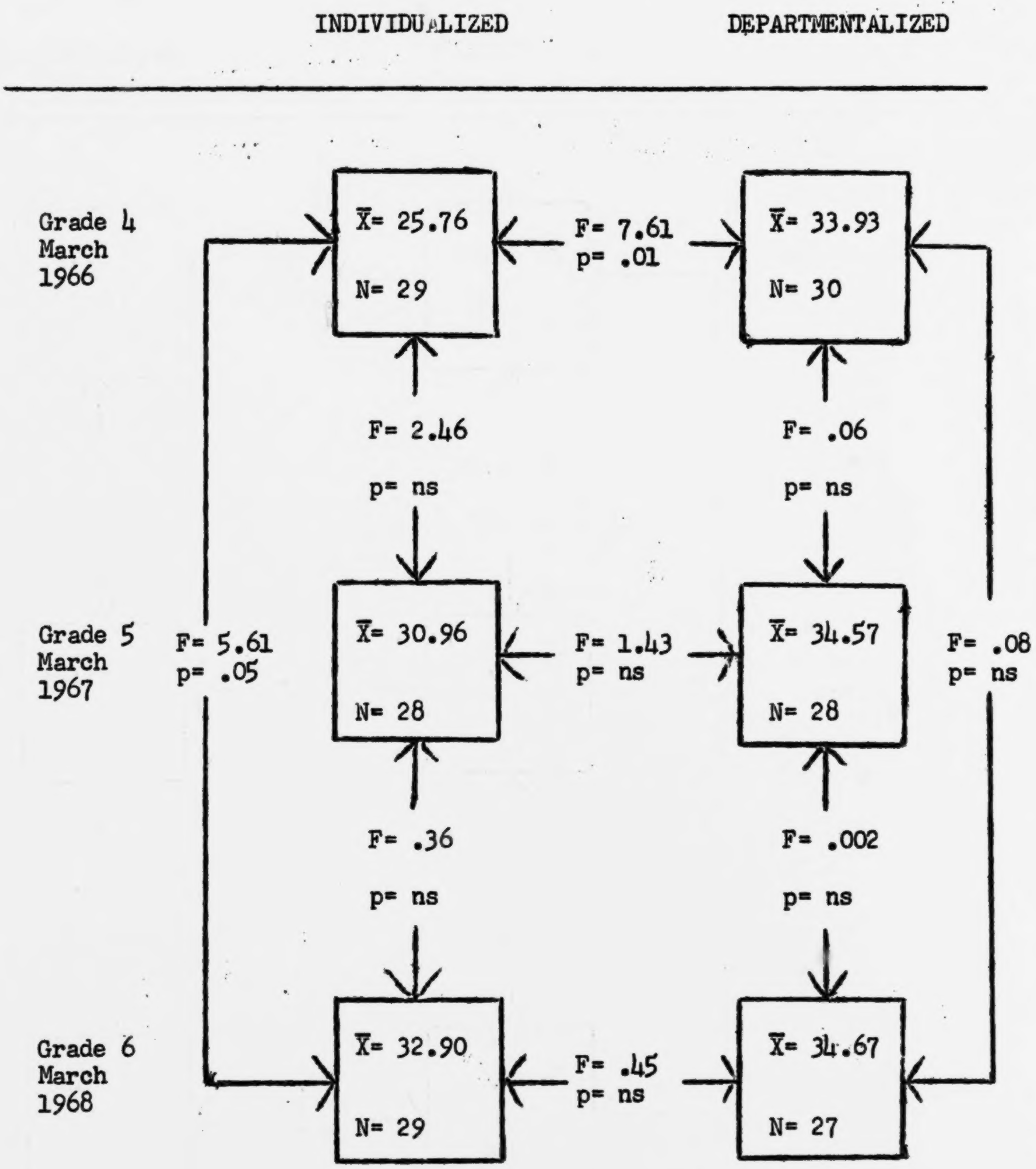

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
$\bar{X}$= 25.76
N= 29
F= 7.61
p= .01
$\bar{X}$= 33.93
N= 30
F= 2.46
p= ns
F= .06
p= ns
Grade 5
March
1967
F= 5.61
p= .05
$\bar{X}$= 30.96
N= 28
F= 1.43
p= ns
$\bar{X}$= 34.57
N= 28
F= .08
p= ns
F= .36
p= ns
F= .002
p= ns
Grade 6
March
1968
$\bar{X}$= 32.90
N= 29
F= .45
p= ns
$\bar{X}$= 34.67
N= 27

TABLE A-10-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS
FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON
SEARS SELF-CONCEPT: SOCIAL RELATIONS WITH GIRLS SCORES

		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 40.83 N= 24	F= .05 p= ns	$\bar{X}$= 41.17 N= 47	
		F= 4.62 p= .05		F= .29 p= ns	
Grade 5 March 1967	F= 4.58 p= .05	$\bar{X}$= 36.74 N= 23	F= 9.83 p= .01	$\bar{X}$= 41.84 N= 43	F= 1.72 p= ns
		F= .07 p= ns		F= 3.01 p= .10	
Grade 6 March 1968		$\bar{X}$= 37.21 N= 24	F= 1.99 p= ns	$\bar{X}$= 39.43 N= 39	

FIGURE A-10

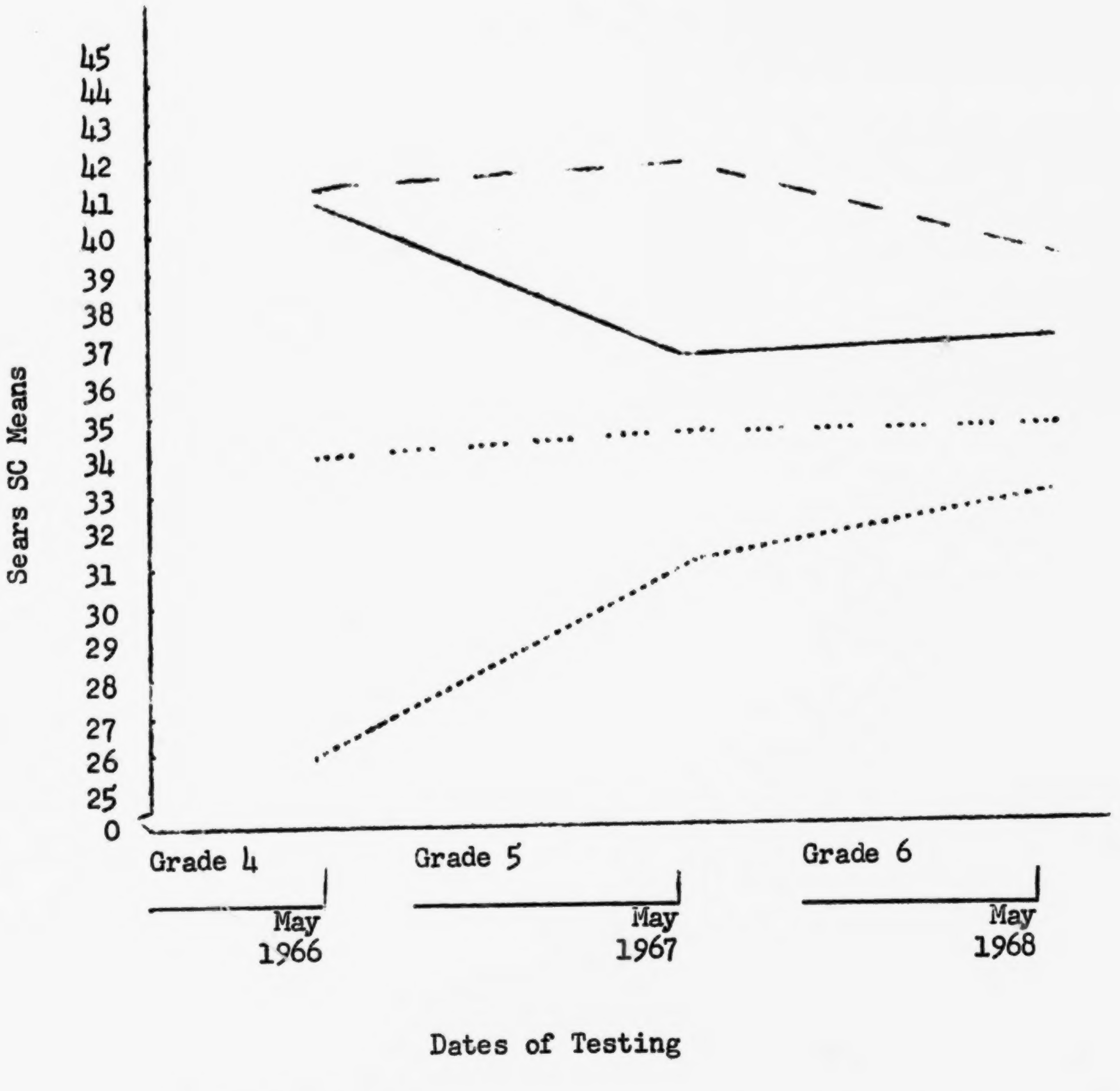


Figure A-10 Sears Self-Concept: Social Relations With Girls Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

··················· Boys - Individualized
———— Girls - Individualized
.... Boys - Departmentalized
— — — Girls - Departmentalized

TABLE A-11-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS *SELF-CONCEPT*: *PHYSICAL APPEARANCE* SCORES

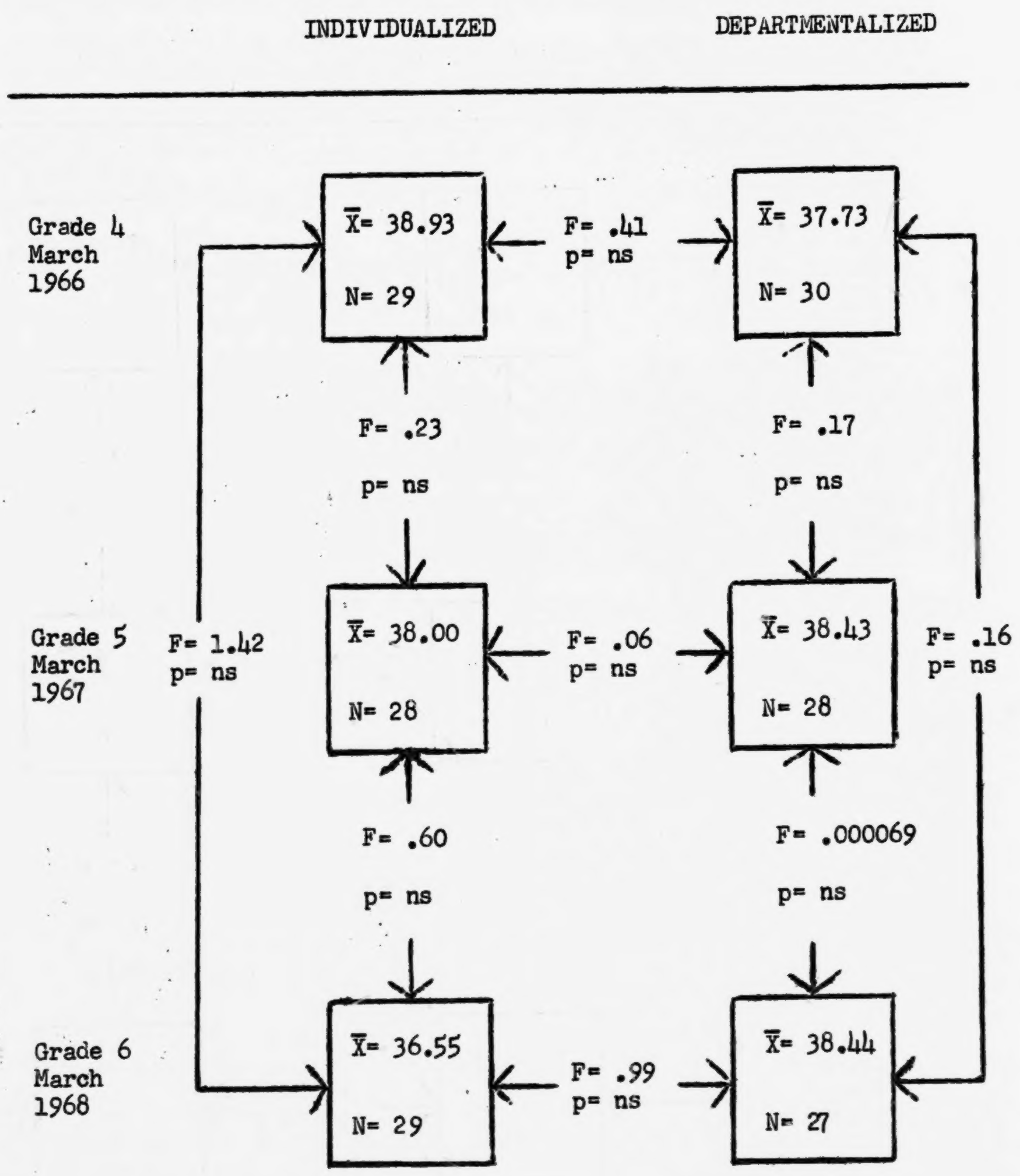

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
$\overline{X}$= 38.93 N= 29
F= .41 p= ns
$\overline{X}$= 37.73 N= 30
F= .23 p= ns
F= .17 p= ns
Grade 5 March 1967
F= 1.42 p= ns
$\overline{X}$= 38.00 N= 28
F= .06 p= ns
$\overline{X}$= 38.43 N= 28
F= .16 p= ns
F= .60 p= ns
F= .000069 p= ns
Grade 6 March 1968
$\overline{X}$= 36.55 N= 29
F= .99 p= ns
$\overline{X}$= 38.44 N= 27

TABLE A-11-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: PHYSICAL APPEARANCE SCORES

		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 38.92 N= 24	F= 1.48 p= ns	$\bar{X}$= 36.64 N= 47	
		F= 3.56 p= ns		F= .005 p= ns	
Grade 5 March 1967	F= 7.29 p= .01	$\bar{X}$= 35.39 N= 23	F= .74 p= ns	$\bar{X}$= 36.74 N= 43	F= .01 p= ns
		F= .41 p= ns		F= .003 p= ns	
Grade 6 March 1968		$\bar{X}$= 34.29 N= 24	F= 2.33 p= ns	X= 36.82 N= 39	

FIGURE A-11

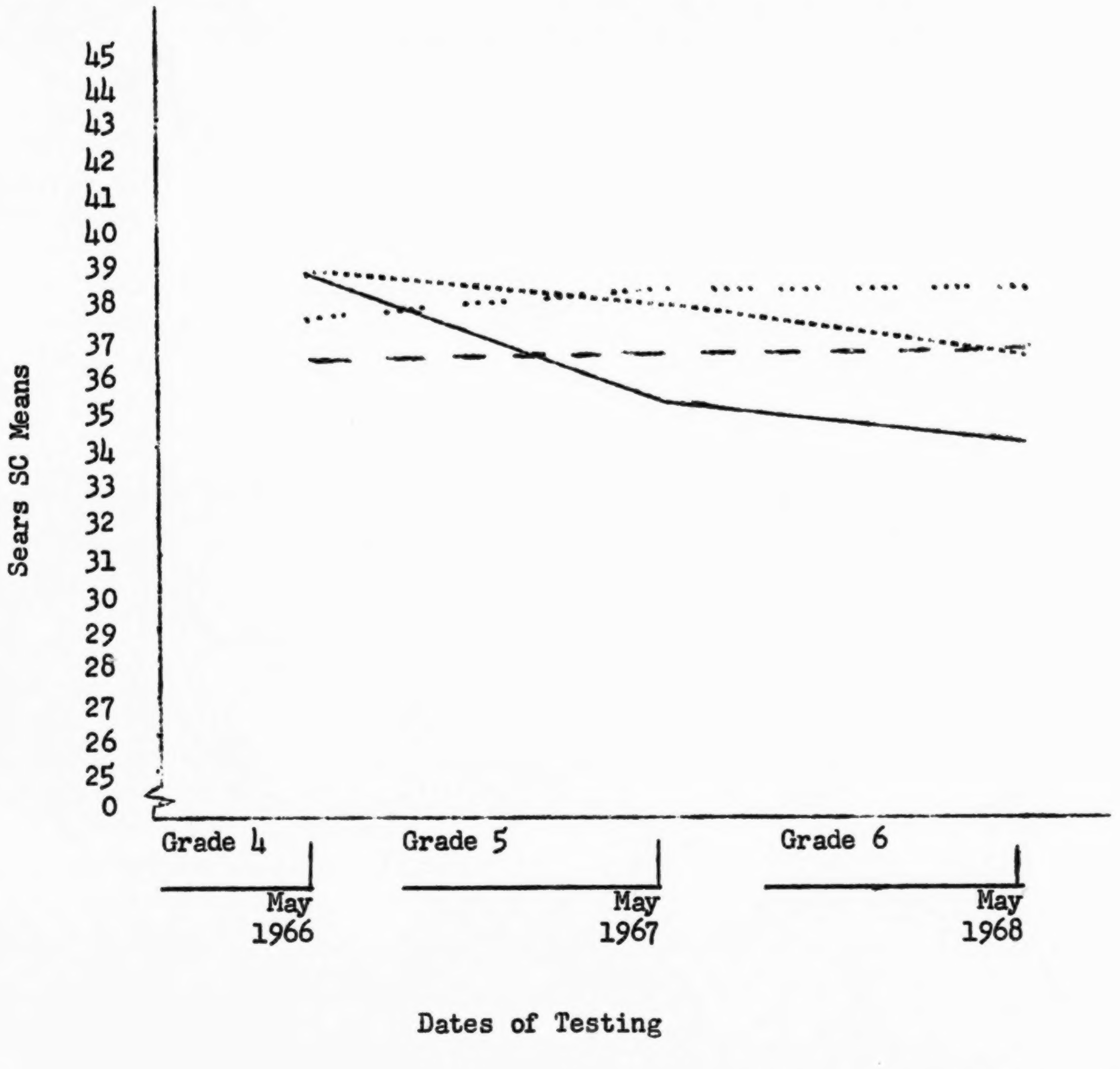


Figure A-11 Sears Self-Concept: Physical Appearance Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

.... Boys - Individualized
________ Girls - Individualized
.... Boys - Departmentalized
_ _ _ Girls - Departmentalized

TABLE A-12-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: TEACHER RELATIONSHIPS SCORES

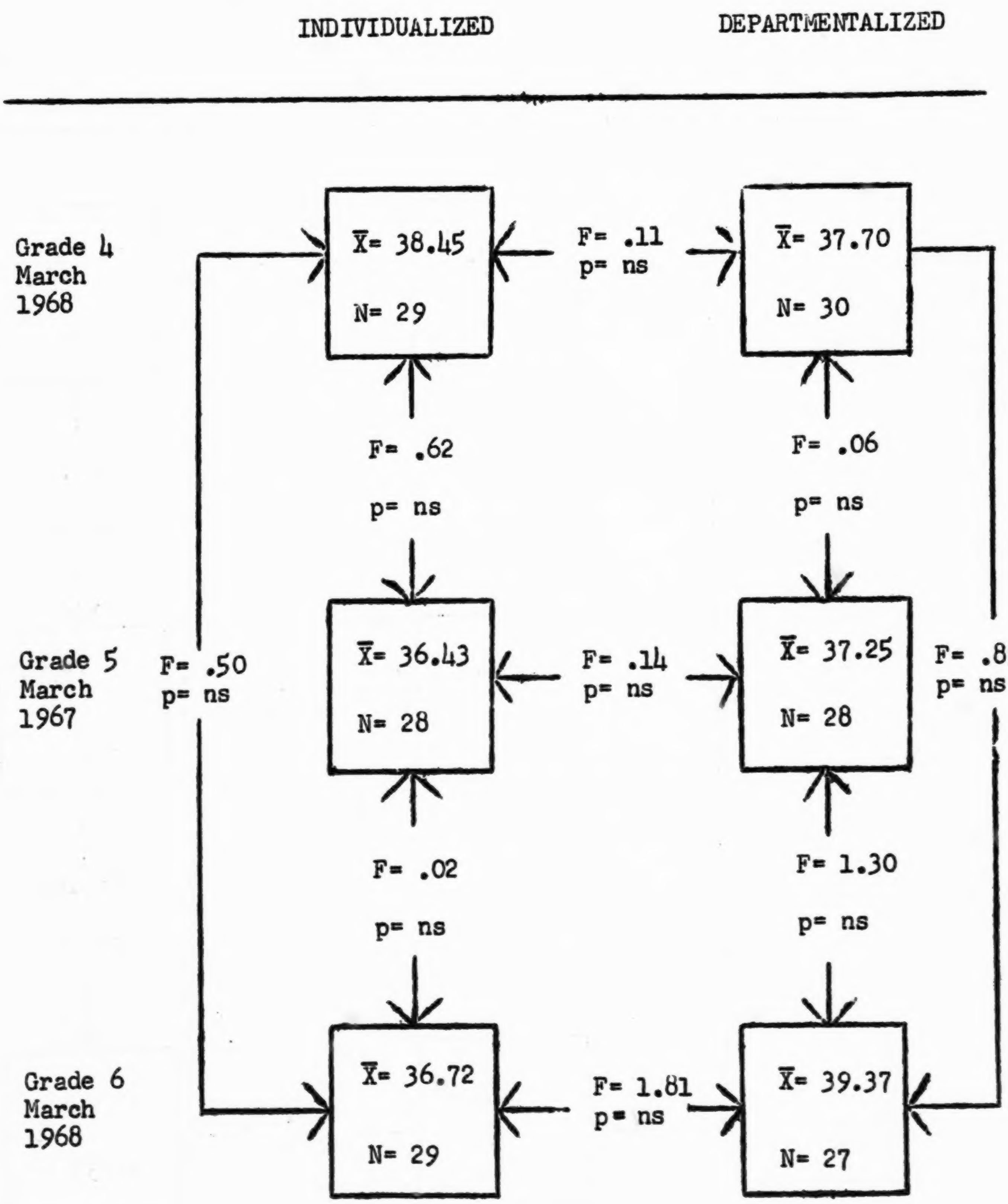

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1968
$\bar{X}$= 38.45
N= 29
F= .11
p= ns
$\bar{X}$= 37.70
N= 30
F= .62
p= ns
F= .06
p= ns
Grade 5
March
1967
F= .50
p= ns
$\bar{X}$= 36.43
N= 28
F= .14
p= ns
$\bar{X}$= 37.25
N= 28
F= .89
p= ns
F= .02
p= ns
F= 1.30
p= ns
Grade 6
March
1968
$\bar{X}$= 36.72
N= 29
F= 1.81
p= ns
$\bar{X}$= 39.37
N= 27

TABLE A-12-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: TEACHER RELATIONSHIPS SCORES

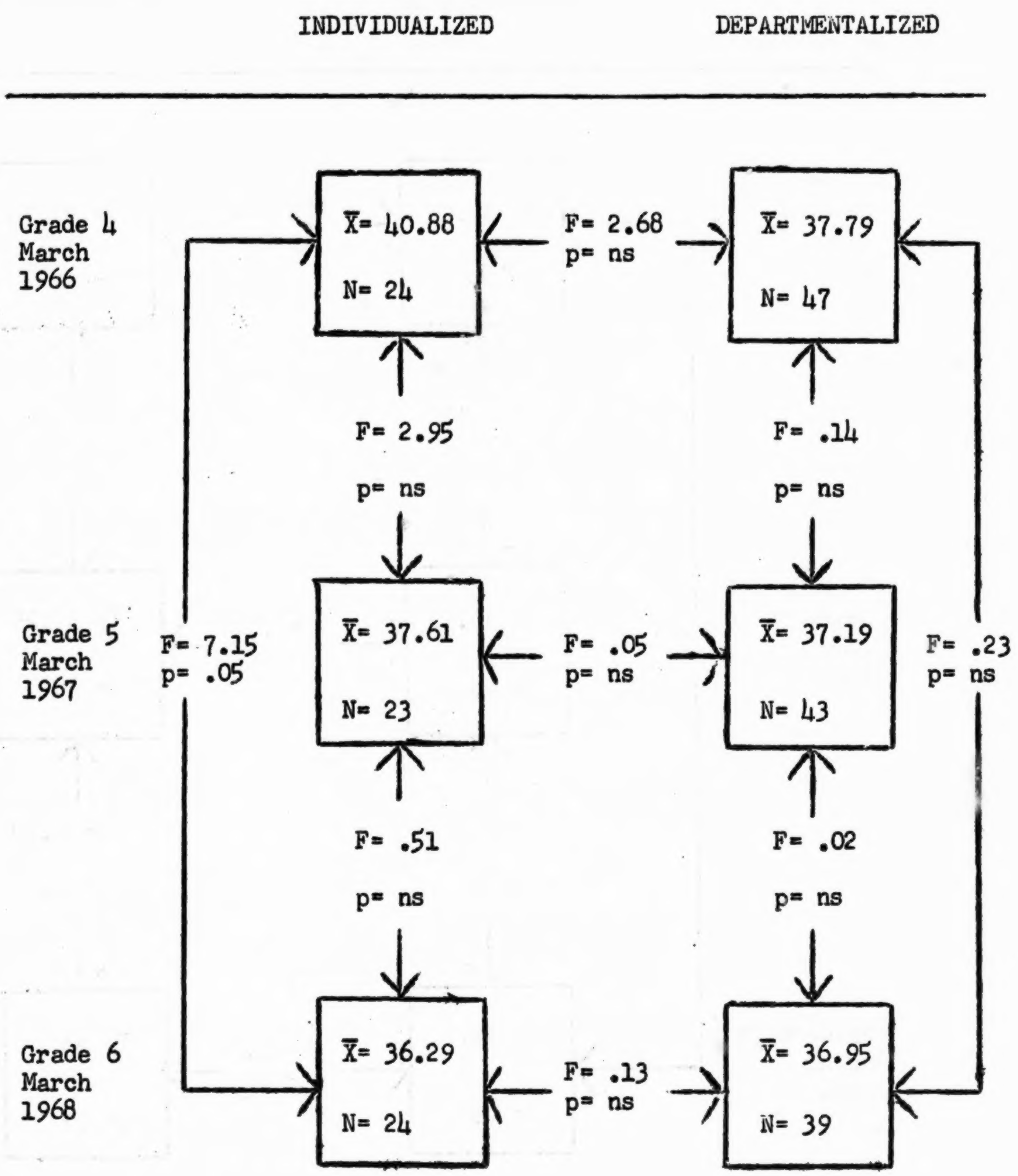

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
$\bar{X}$= 40.88
N= 24
F= 2.68
p= ns
$\bar{X}$= 37.79
N= 47
F= 2.95
p= ns
F= .14
p= ns
Grade 5
March
1967
F= 7.15
p= .05
$\bar{X}$= 37.61
N= 23
F= .05
p= ns
$\bar{X}$= 37.19
N= 43
F= .23
p= ns
F= .51
p= ns
F= .02
p= ns
Grade 6
March
1968
$\bar{X}$= 36.29
N= 24
F= .13
p= ns
$\bar{X}$= 36.95
N= 39

FIGURE A- 12

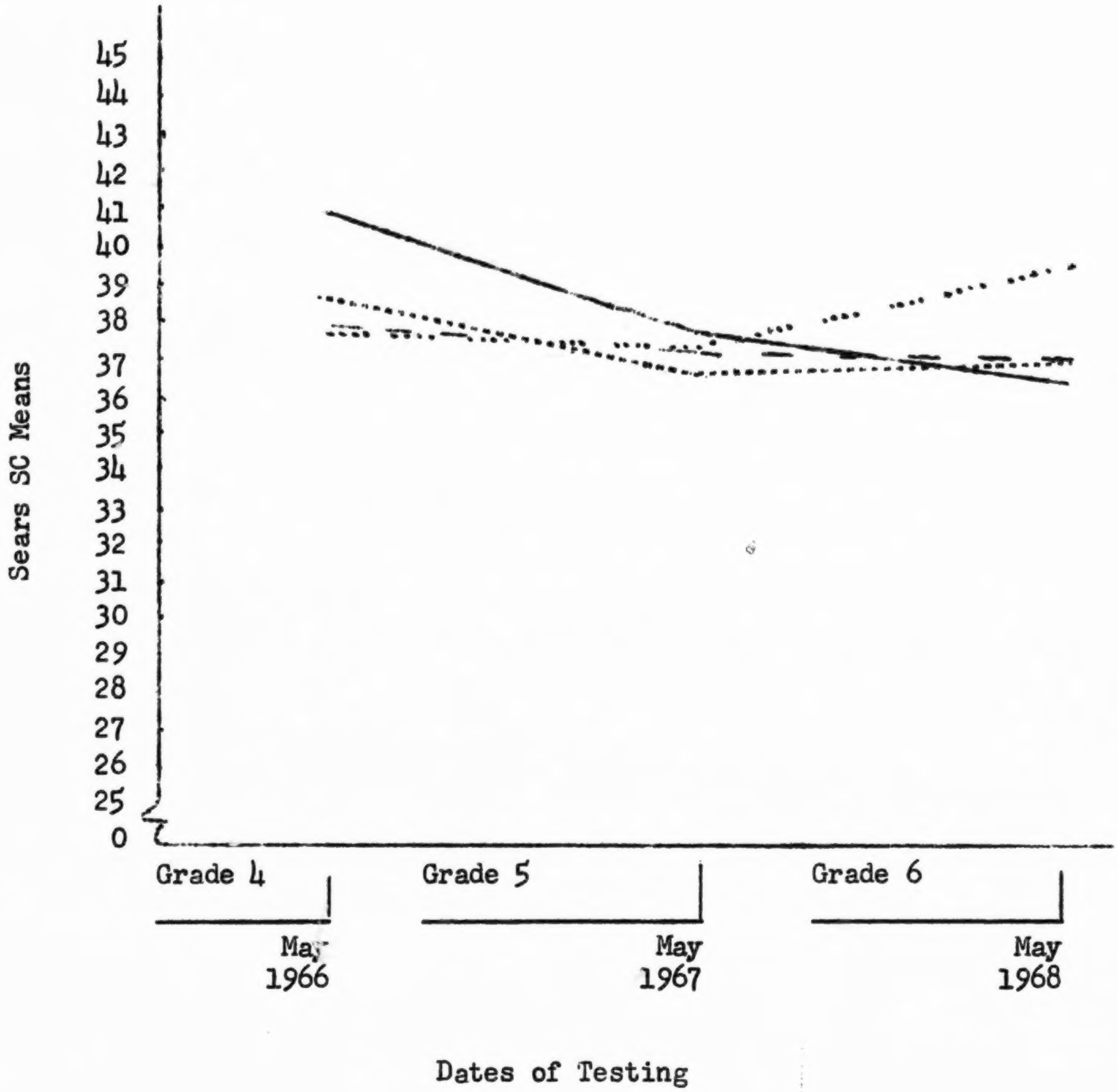
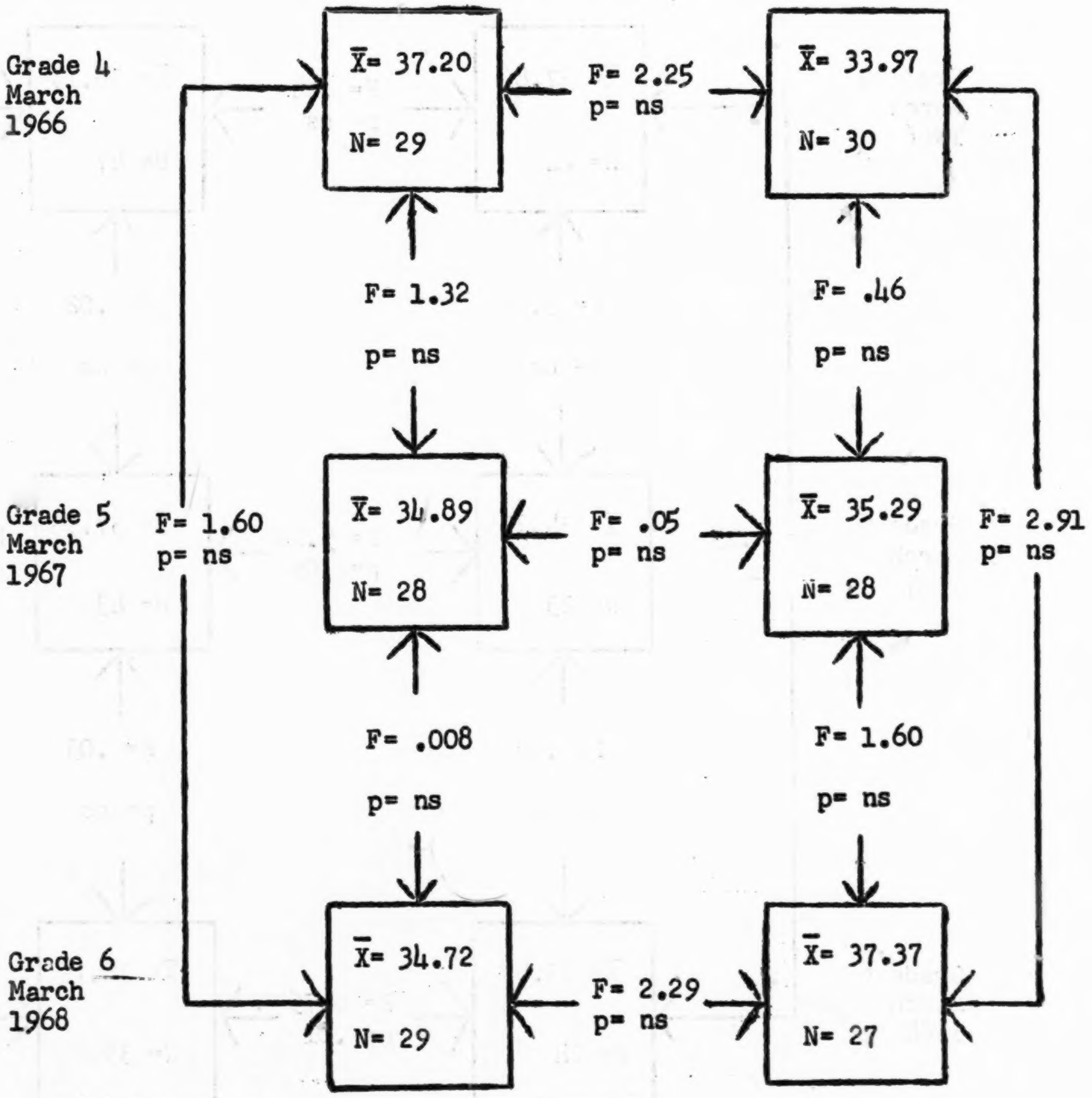


Figure A-12 Sears Self-Concept: Teacher Relationships Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

·-·-·-·-·-·-·-·-·-·-·-· Boys - Individualized ———— Girls - Individualized
····· -— ····· ··· Boys - Departmentalized _ _ _ Girls - Departmentalized

TABLE A-13-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: INDEPENDENCE AT SCHOOL WORK SCORES



		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 37.20 N= 29	F= 2.25 p= ns	$\bar{X}$= 33.97 N= 30	
		F= 1.32 p= ns		F= .46 p= ns	
Grade 5 March 1967	F= 1.60 p= ns	$\bar{X}$= 34.89 N= 28	F= .05 p= ns	$\bar{X}$= 35.29 N= 28	F= 2.91 p= ns
		F= .008 p= ns		F= 1.60 p= ns	
Grade 6 March 1968		$\bar{X}$= 34.72 N= 29	F= 2.29 p= ns	$\bar{X}$= 37.37 N= 27	

TABLE A-13-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: INDEPENDENCE AT SCHOOL WORK SCORES

INDIVIDUALIZED DEPARTMENTALIZED

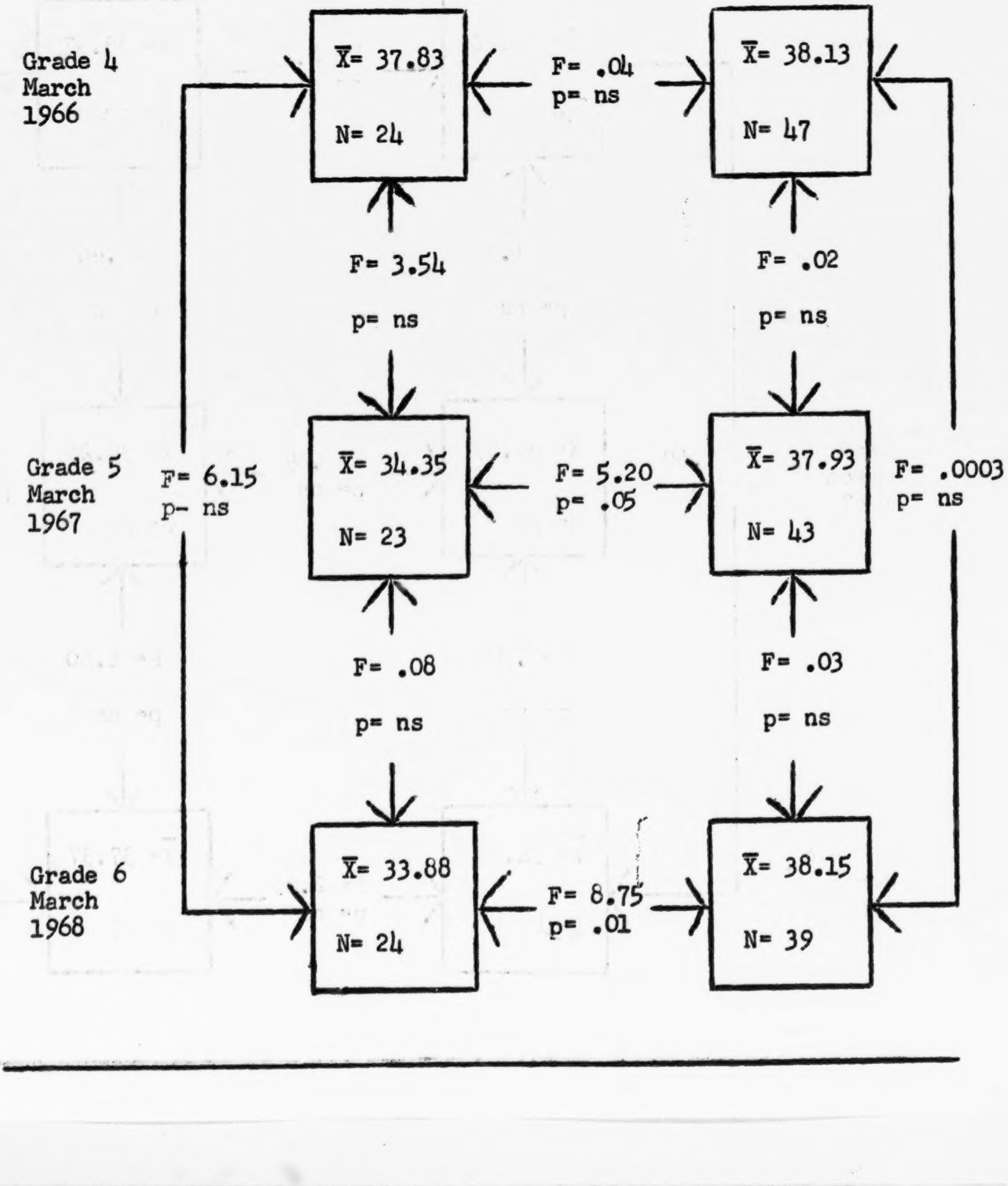

Grade 4
March
1966
X̄= 37.83
N= 24
F= .04
p= ns
X̄= 38.13
N= 47
F= 3.54
p= ns
F= .02
p= ns
Grade 5
March
1967
F= 6.15
p- ns
X̄= 34.35
N= 23
F= 5.20
p= .05
X̄= 37.93
N= 43
F= .0003
p= ns
F= .08
p= ns
F= .03
p= ns
Grade 6
March
1968
X̄= 33.88
N= 24
F= 8.75
p= .01
X̄= 38.15
N= 39

FIGURE A-13

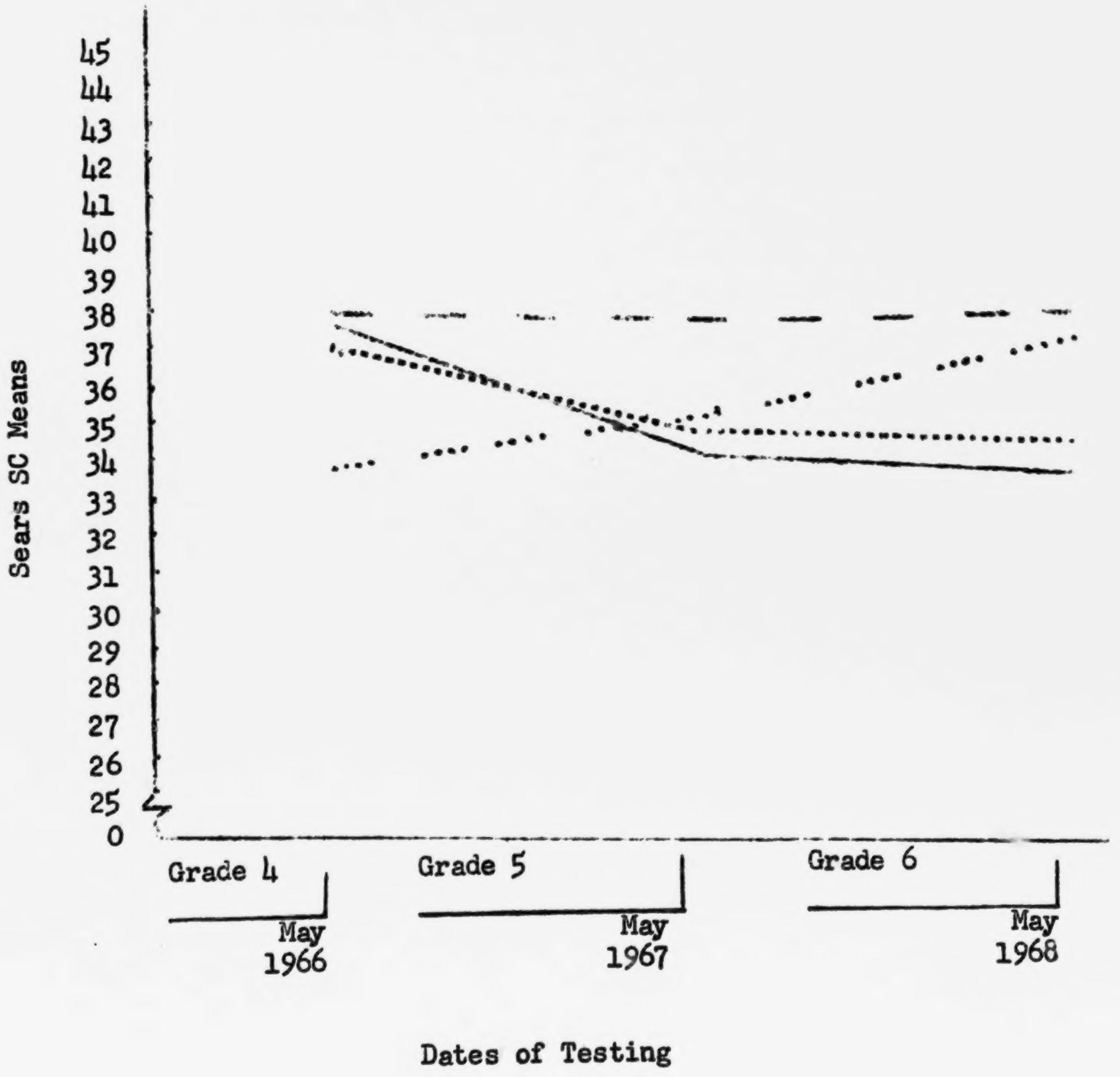


Figure A-13 Sears Self-Concept: Independence at School Work for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

················ Boys - Individualized ———— Girls - Individualized
···· ···· ···· ···· Boys - Departmentalized — — — — Girls - Departmentalized

TABLE A-14-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: SOCIAL VIRTUES SCORES

INDIVIDUALIZED DEPARTMENTALIZED

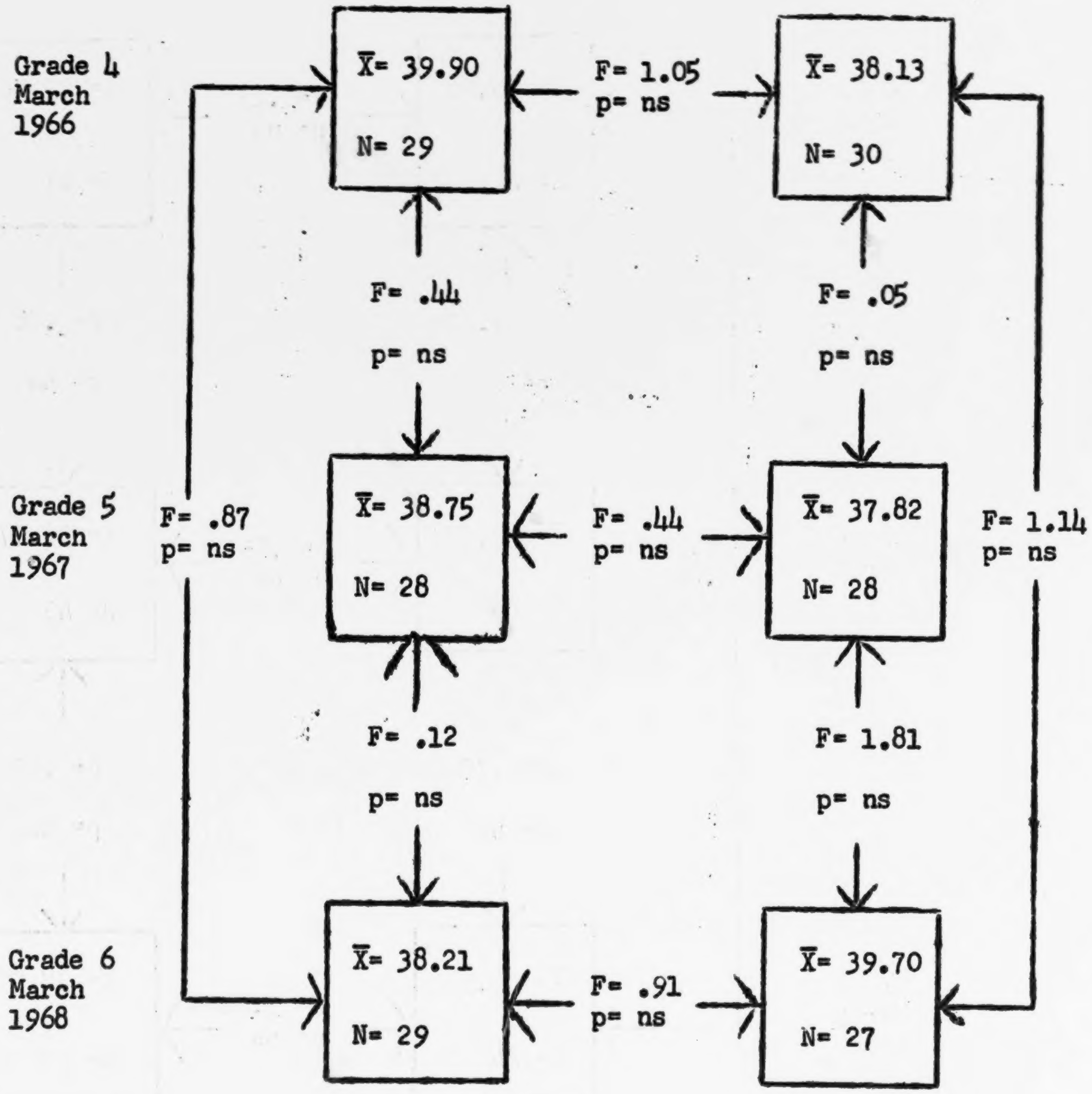

Grade 4
March
1966
$\bar{X}$= 39.90
N= 29
F= 1.05
p= ns
$\bar{X}$= 38.13
N= 30
F= .44
p= ns
F= .05
p= ns
Grade 5
March
1967
F= .87
p= ns
$\bar{X}$= 38.75
N= 28
F= .44
p= ns
$\bar{X}$= 37.82
N= 28
F= 1.14
p= ns
F= .12
p= ns
F= 1.81
p= ns
Grade 6
March
1968
$\bar{X}$= 38.21
N= 29
F= .91
p= ns
$\bar{X}$= 39.70
N= 27

TABLE A-14-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: SOCIAL VIRTUES SCORES

INDIVIDUALIZED DEPARTMENTALIZED

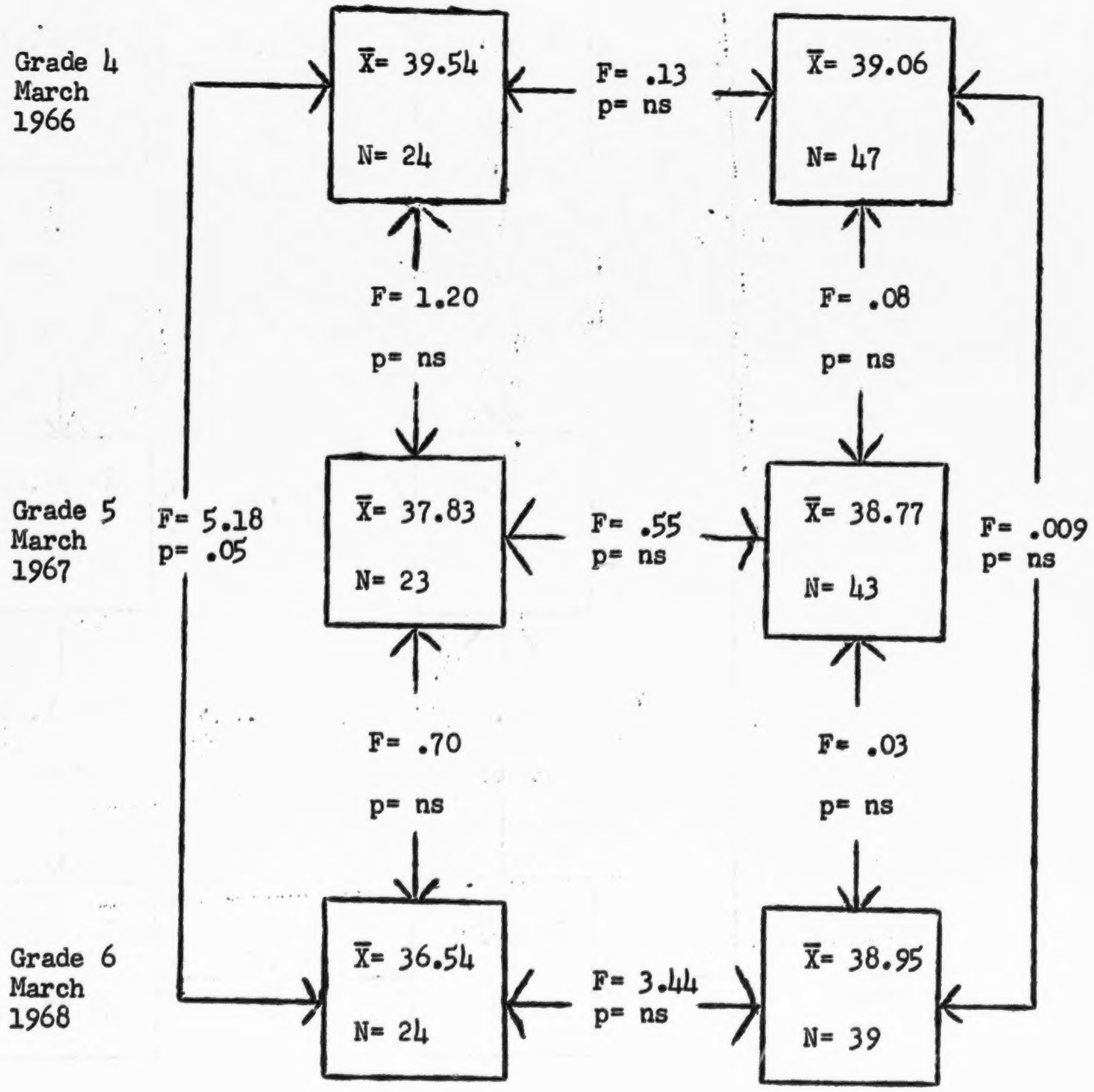

Grade 4
March
1966
$\bar{X}$= 39.54
N= 24
F= .13
p= ns
$\bar{X}$= 39.06
N= 47
F= 1.20
p= ns
F= .08
p= ns
Grade 5
March
1967
F= 5.18
p= .05
$\bar{X}$= 37.83
N= 23
F= .55
p= ns
$\bar{X}$= 38.77
N= 43
F= .009
p= ns
F= .70
p= ns
F= .03
p= ns
Grade 6
March
1968
$\bar{X}$= 36.54
N= 24
F= 3.44
p= ns
$\bar{X}$= 38.95
N= 39

FIGURE A-14

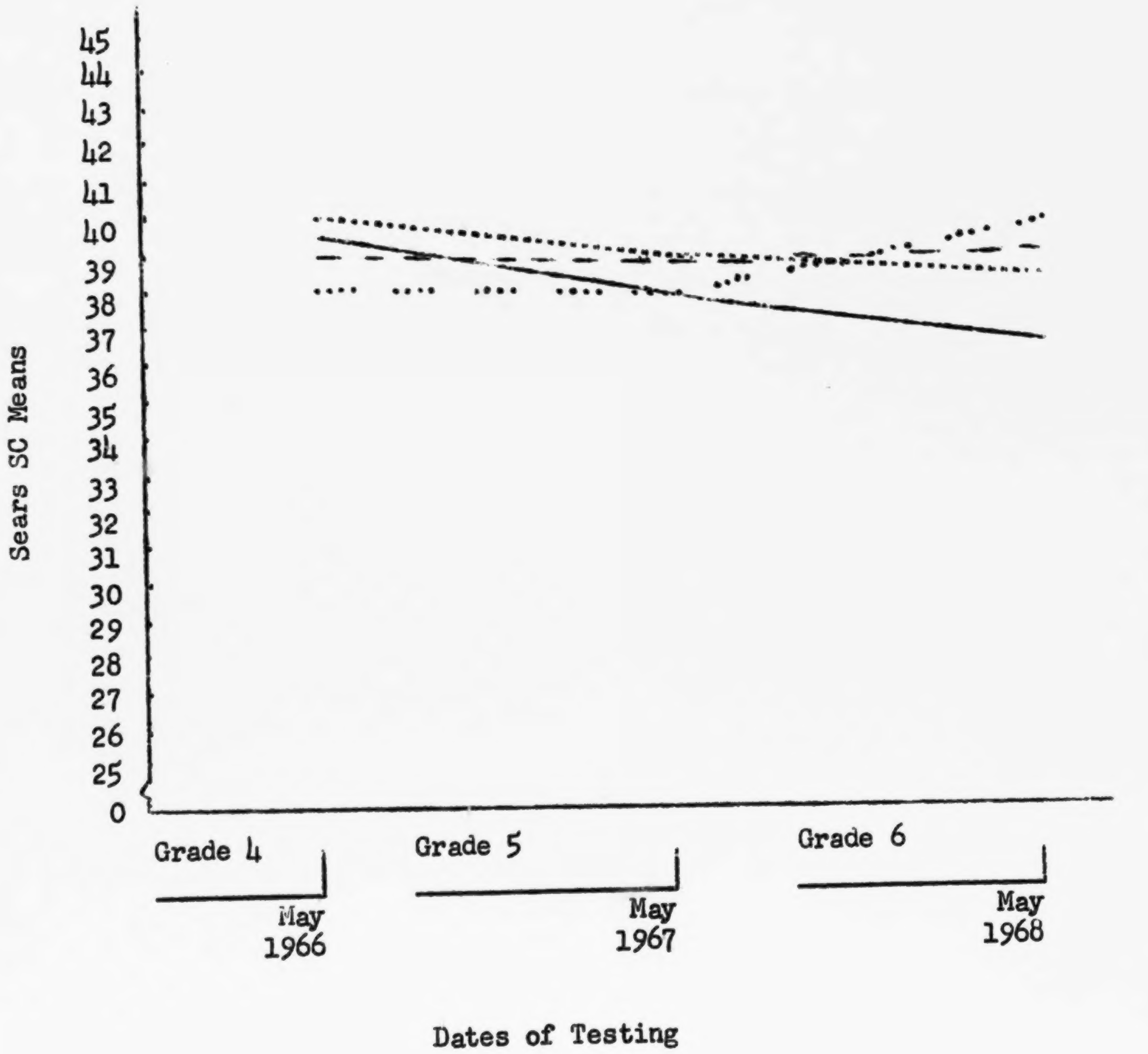


Figure A-14 Sears Self-Concept: Social Virtues Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

·········· Boys - Individualized ——— Girls - Individualized
·· ··· ··· ···· Boys - Departmentalized — — — — Girls - Departmentalized

TABLE A-15-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: HAPPY QUALITIES SCORES

INDIVIDUALIZED DEPARTMENTALIZED

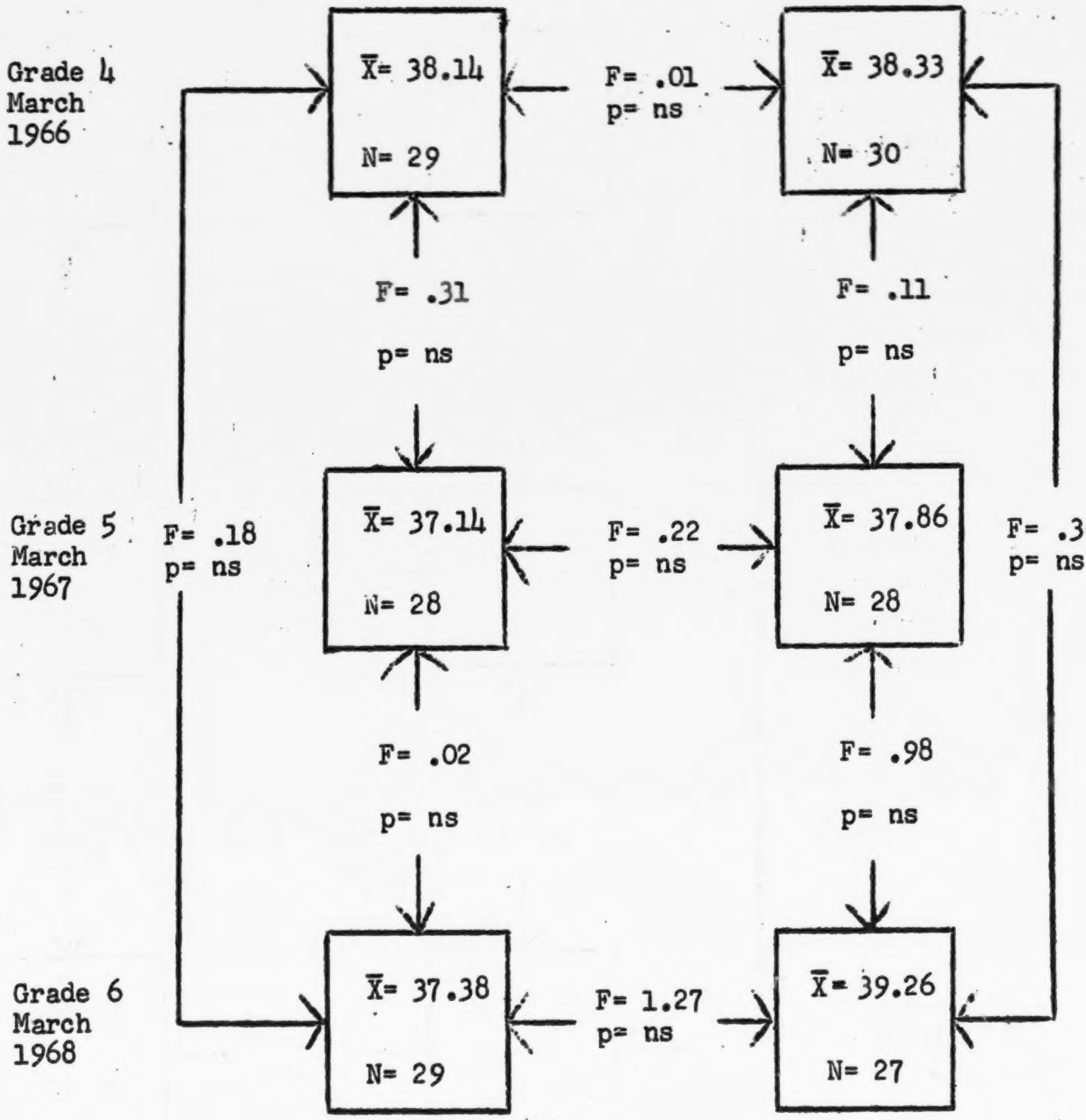

Grade 4
March
1966
$\bar{X}$= 38.14
N= 29
F= .01
p= ns
$\bar{X}$= 38.33
N= 30
F= .31
p= ns
F= .11
p= ns
Grade 5
March
1967
F= .18
p= ns
$\bar{X}$= 37.14
N= 28
F= .22
p= ns
$\bar{X}$= 37.86
N= 28
F= .36
p= ns
F= .02
p= ns
F= .98
p= ns
Grade 6
March
1968
$\bar{X}$= 37.38
N= 29
F= 1.27
p= ns
$\bar{X}$= 39.26
N= 27

TABLE A-15-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: HAPPY QUALITIES SCORES

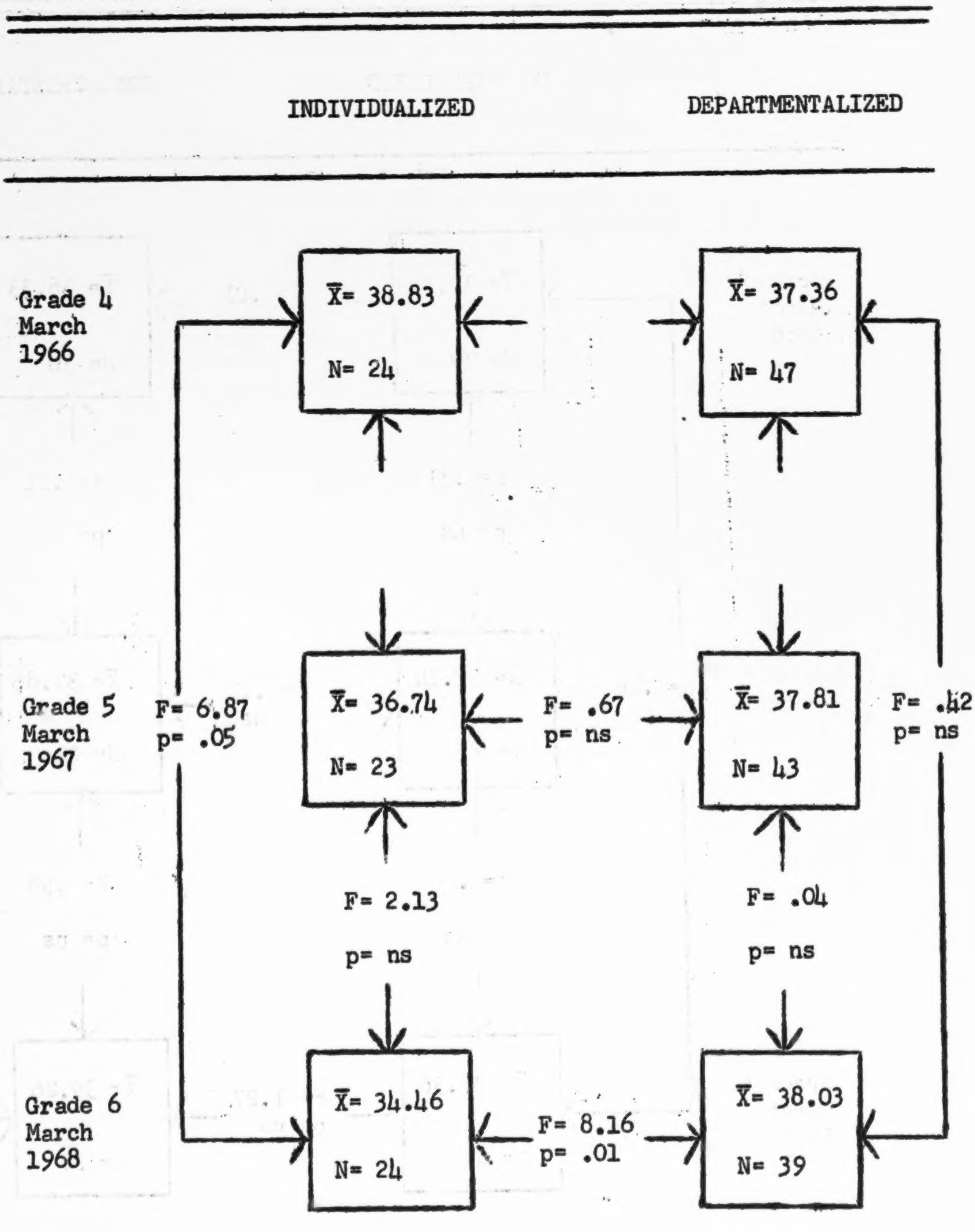

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
X̄= 38.83
N= 24
X̄= 37.36
N= 47
Grade 5 March 1967
F= 6.87
p= .05
X̄= 36.74
N= 23
F= .67
p= ns
X̄= 37.81
N= 43
F= .42
p= ns
F= 2.13
p= ns
F= .04
p= ns
Grade 6 March 1968
X̄= 34.46
N= 24
F= 8.16
p= .01
X̄= 38.03
N= 39

FIGURE A-15

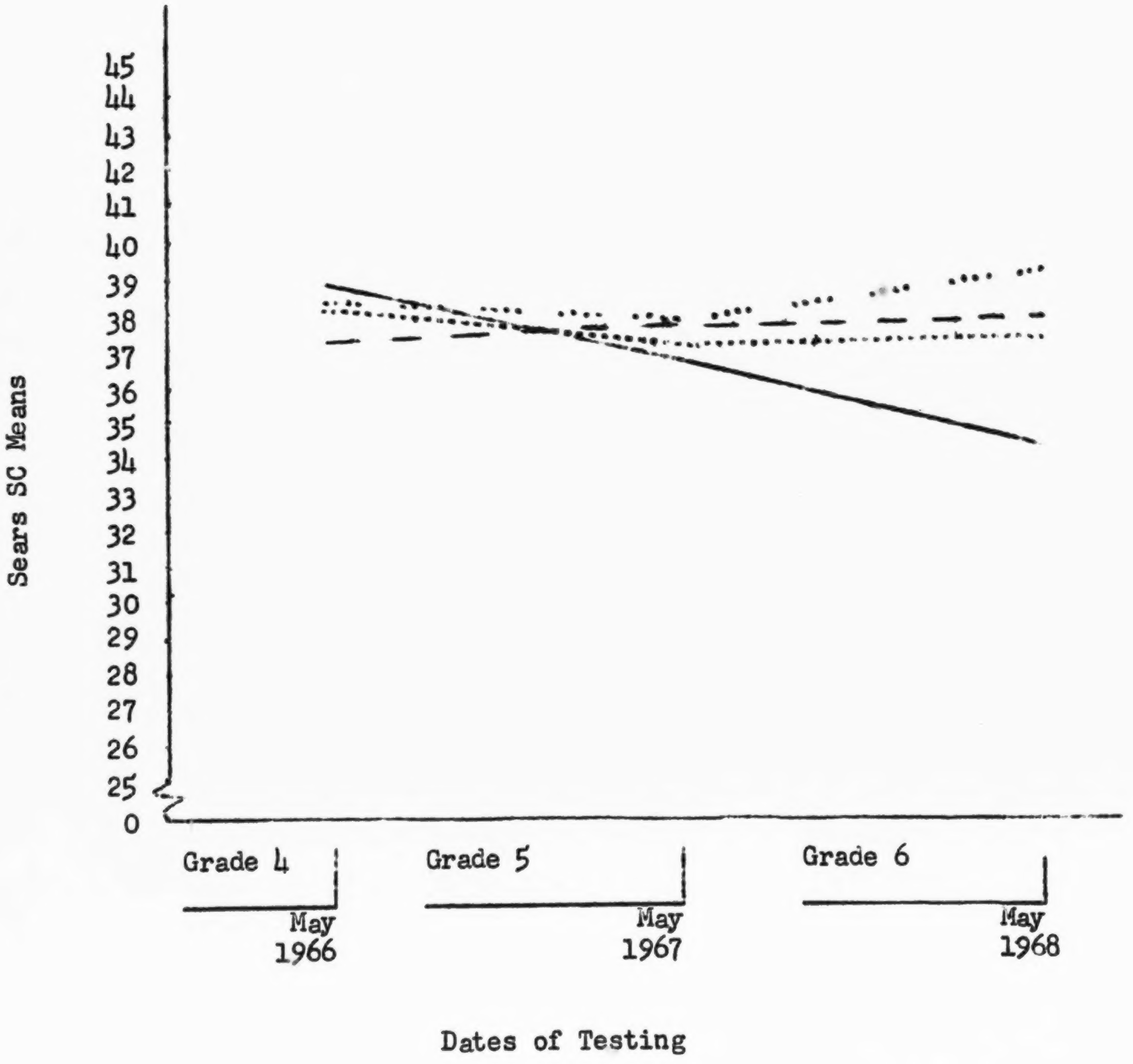


Figure Sears Self-Concept: Happy Qualities Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

.... Boys - Individualized ———— Girls - Individualized
.... Boys - Departmentalized — — — Girls - Departmentalized

TABLE A-16-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS
FOR BOYS BETWEEN PROGRAMD AND BETWEEN GRADES
SEARS SELF-CONCEPT: SCHOOL WORK SCORES

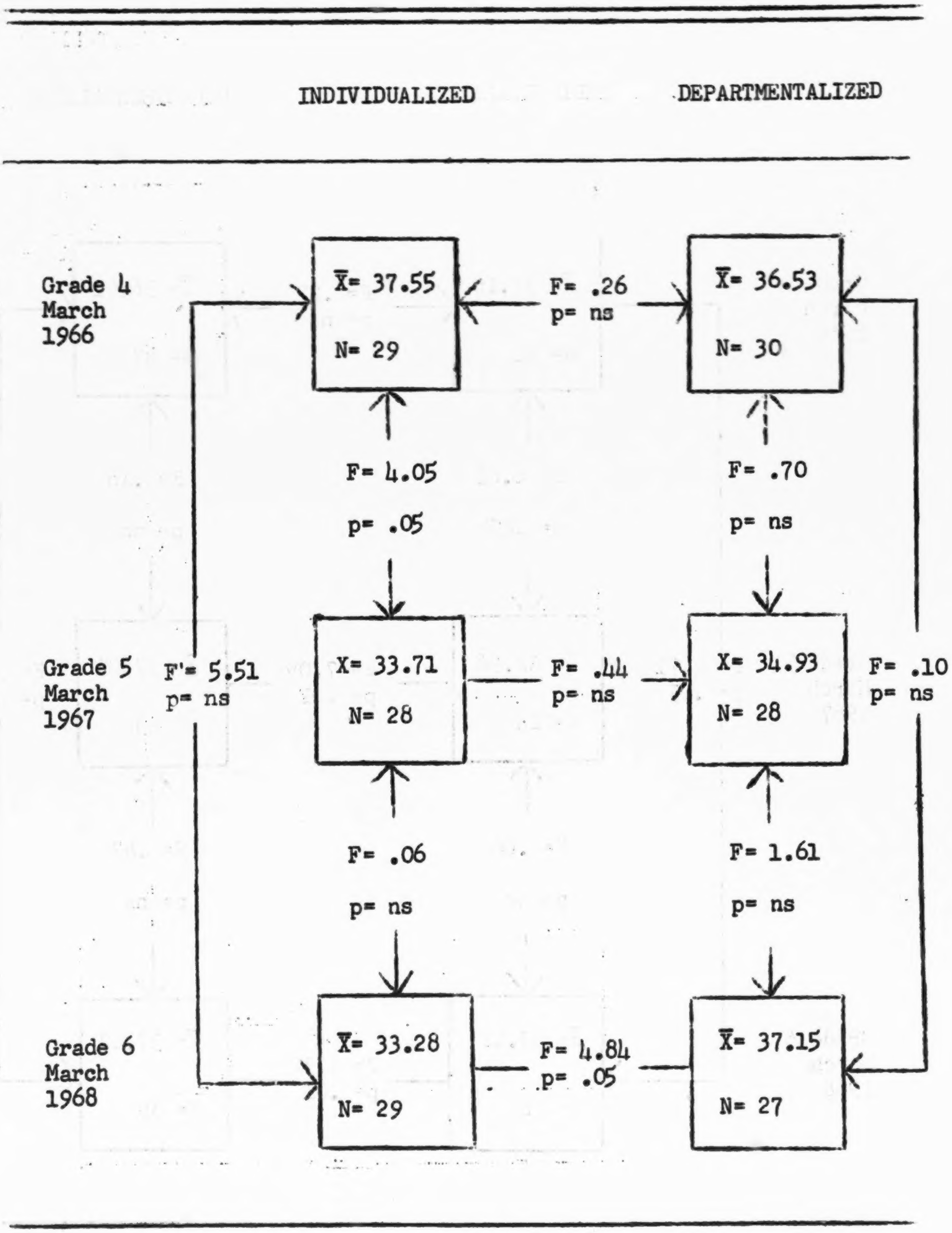
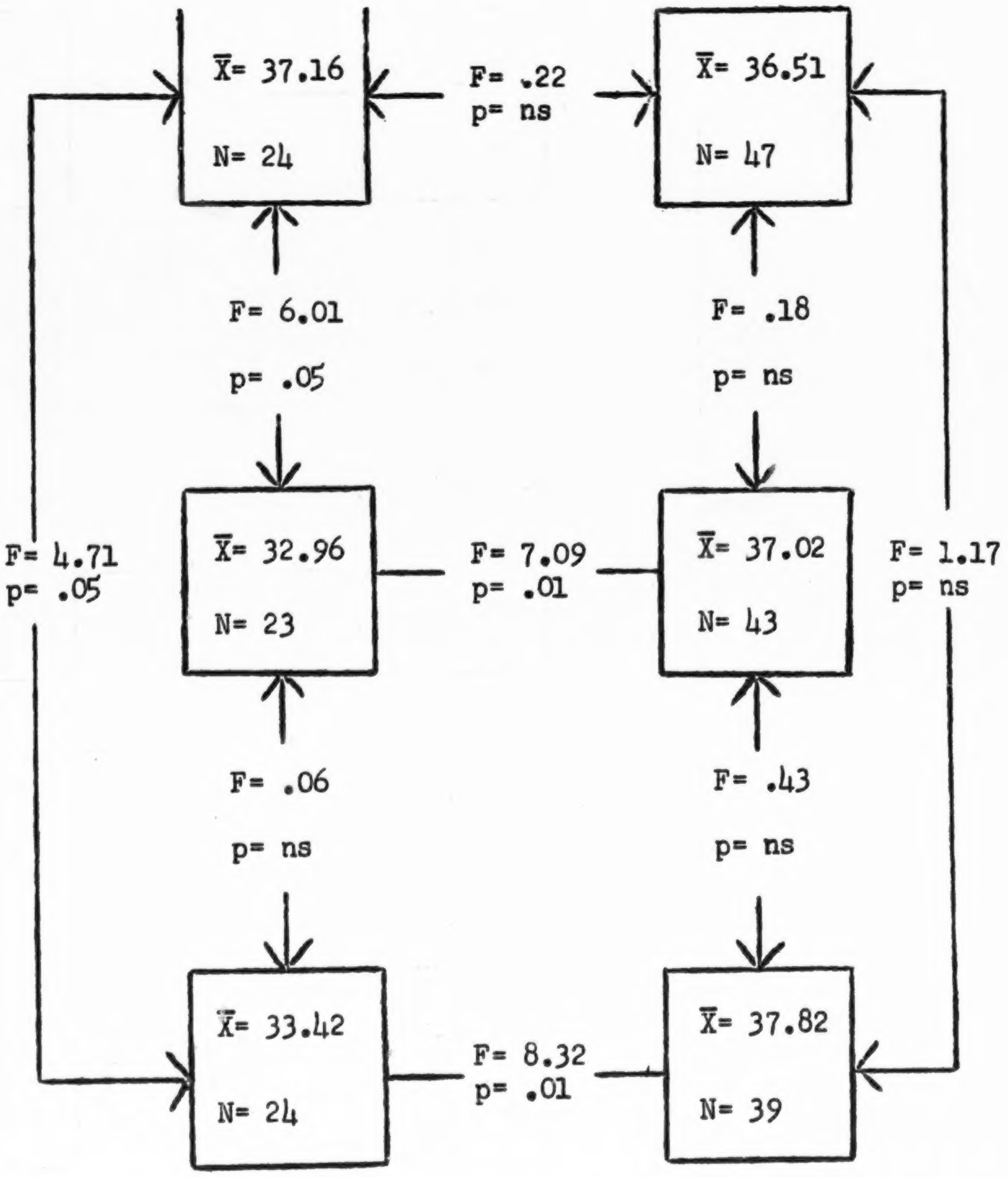

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
$\bar{X}$= 37.55
N= 29
F= .26
p= ns
$\bar{X}$= 36.53
N= 30
F= 4.05
p= .05
F= .70
p= ns
Grade 5 March 1967
F'= 5.51
p= ns
X= 33.71
N= 28
F= .44
p= ns
X= 34.93
N= 28
F= .10
p= ns
F= .06
p= ns
F= 1.61
p= ns
Grade 6 March 1968
$\bar{X}$= 33.28
N= 29
F= 4.84
p= .05
$\bar{X}$= 37.15
N= 27

TABLE A-16-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS
FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES
ON SEARS SELF-CONCEPT: SCHOOL WORK SCORES



		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 37.16 N= 24	F= .22 p= ns	$\bar{X}$= 36.51 N= 47	
		F= 6.01 p= .05		F= .18 p= ns	
Grade 5 March 1967	F= 4.71 p= .05	$\bar{X}$= 32.96 N= 23	F= 7.09 p= .01	$\bar{X}$= 37.02 N= 43	F= 1.17 p= ns
		F= .06 p= ns		F= .43 p= ns	
Grade 6 March 1968		$\bar{X}$= 33.42 N= 24	F= 8.32 p= .01	$\bar{X}$= 37.82 N= 39	

FIGURE A-16

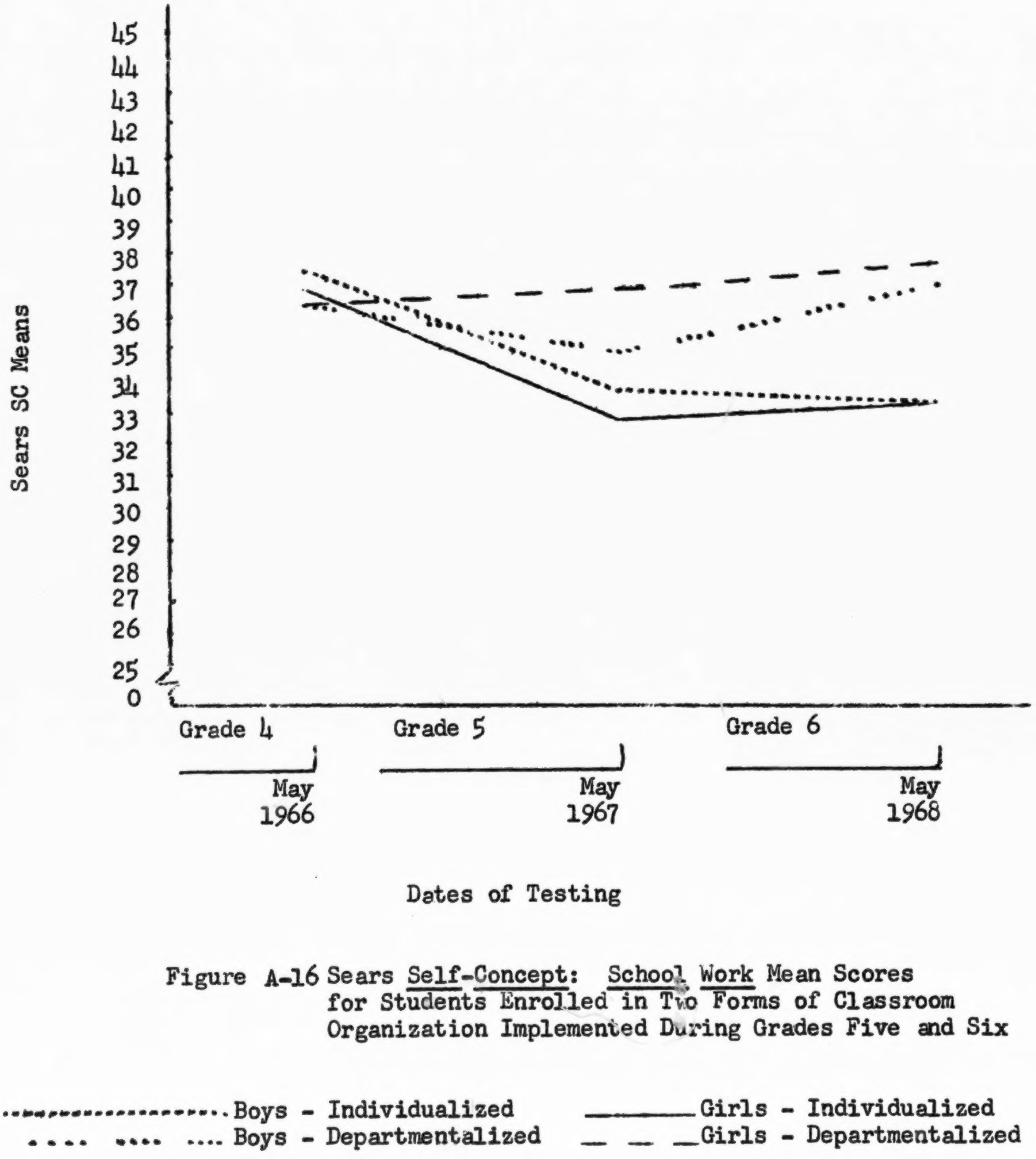


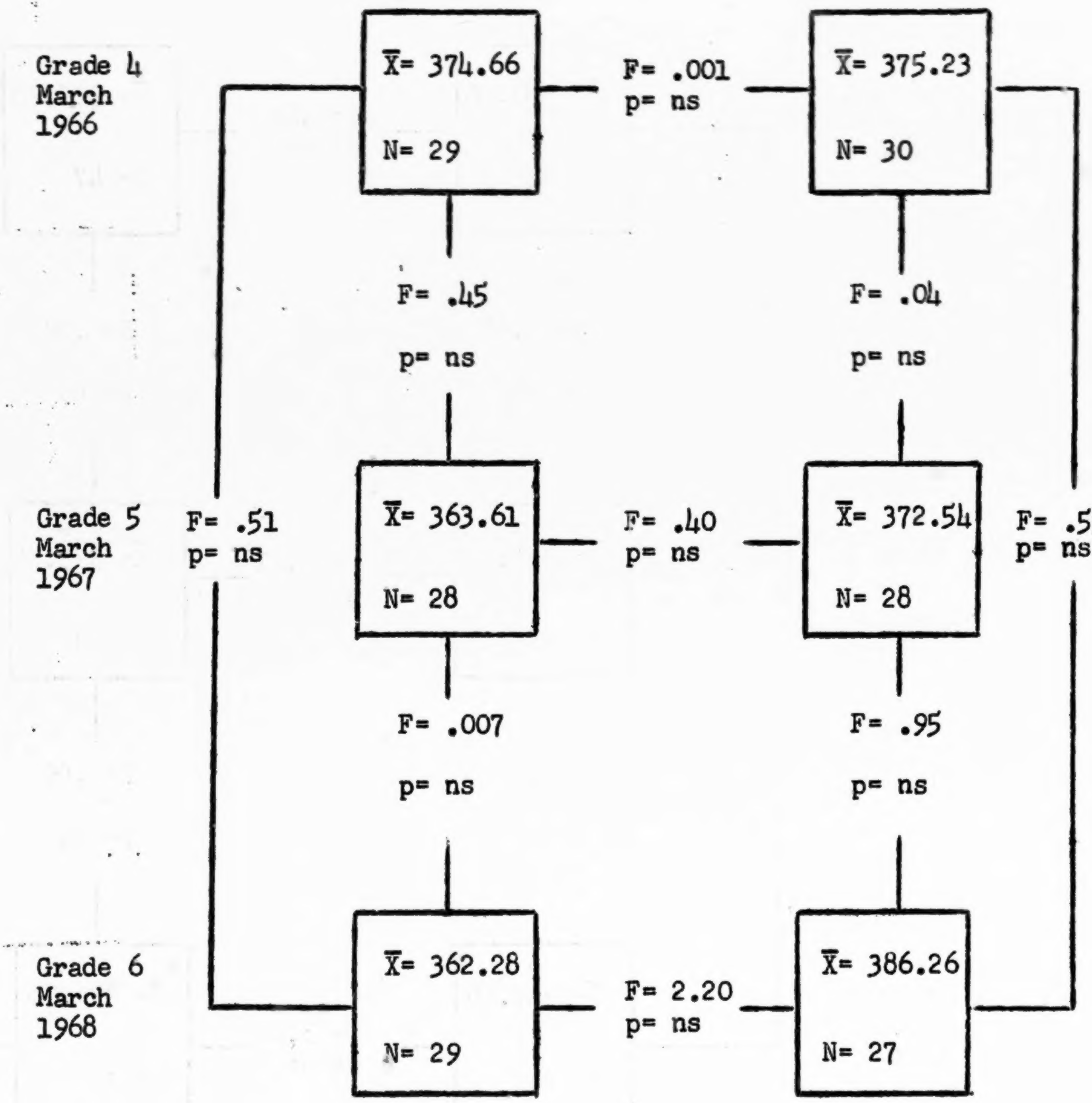
Figure A-16 Sears Self-Concept: School Work Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

..................Boys - Individualized ________Girls - Individualized
....Boys - Departmentalized _ _ _Girls - Departmentalized

TABLE A-17-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: TOTAL SCORES

INDIVIDUALIZED DEPARTMENTALIZED



Grade 4
March
1966

X̄= 374.66
N= 29

F= .001
p= ns

X̄= 375.23
N= 30

F= .45
p= ns

F= .04
p= ns

Grade 5
March
1967

F= .51
p= ns

X̄= 363.61
N= 28

F= .40
p= ns

X̄= 372.54
N= 28

F= .55
p= ns

F= .007
p= ns

F= .95
p= ns

Grade 6
March
1968

X̄= 362.28
N= 29

F= 2.20
p= ns

X̄= 386.26
N= 27

TABLE A-17-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS SELF-CONCEPT: TOTAL SCORES

		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\overline{X}$= 383.08 N= 24	F= .41 p= ns	$\overline{X}$= 375.20 N= 47	
		F= 5.62 p= .05		F= .02 p= ns	
Grade 5 March 1967	F= 7.65 p= .01	$\overline{X}$= 351.17 N= 23	F= 3.71 p= ns	$\overline{X}$= 373.86 N= 43	F= .11 p= ns
		F= .09 p= ns		F= .05 p= ns	
Grade 6 March 1968		$\overline{X}$= 347.16 N= 24	F= 3.88 p= ns	$\overline{X}$= 371.56 N= 39	

FIGURE A-17

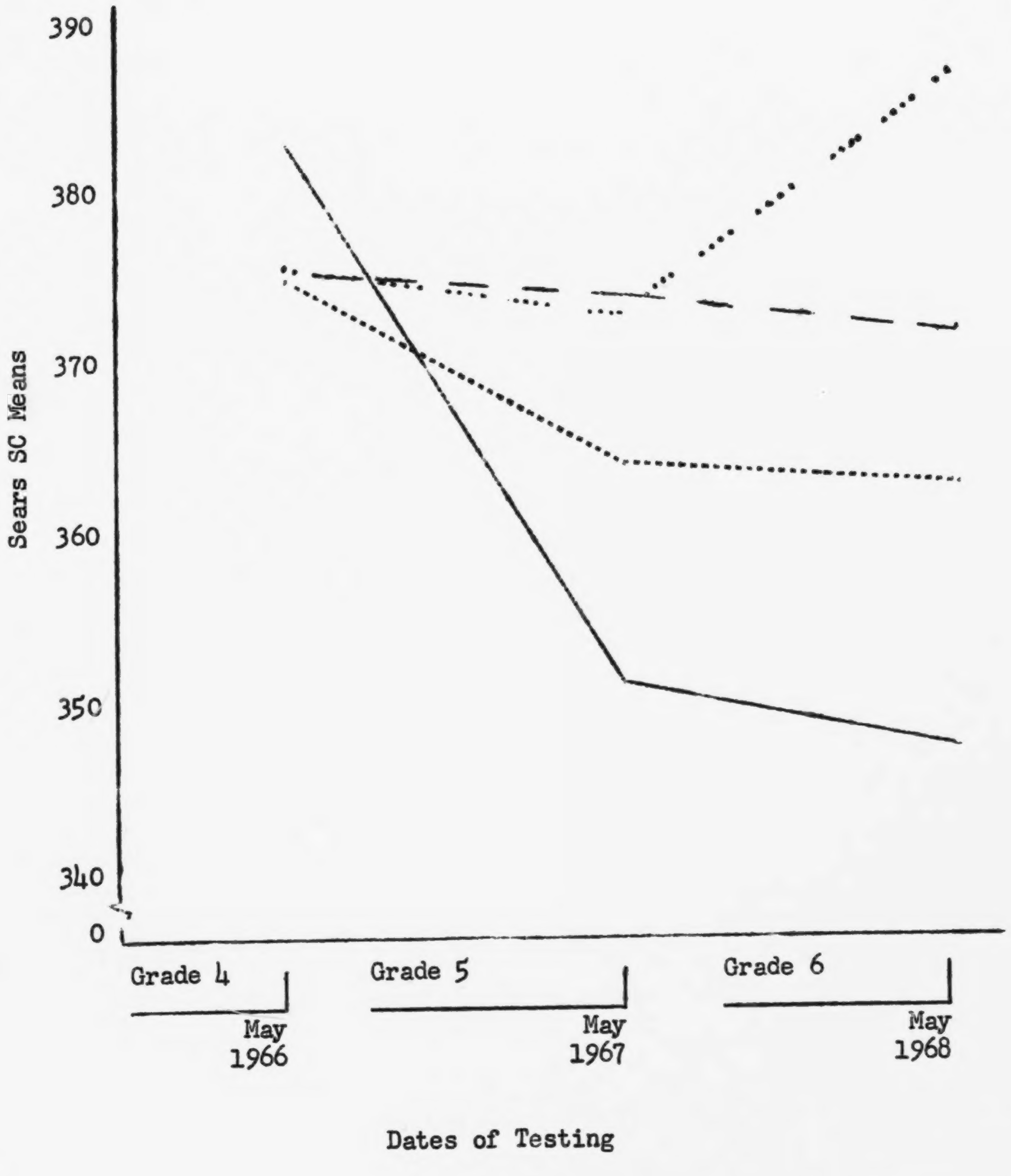


Figure A-17 Sears Self-Concept: Sears Total Mean Scores for Students Enrolled in Two Forms of Classroom Orgaization Implemented During Grades Five and Six

TABLE A-18-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: WORK HABITS SCORES

		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 29.55 N= 29	F= .68 p= ns	$\bar{X}$= 28.19 N= 31	
		F= .04 p= ns		F= .51 p= ns	
Grade 5 March 1967	F= .88 p= ns	$\bar{X}$= 29.19 N= 27	F= 1.73 p= ns	$\bar{X}$= 27.18 N= 28	F= .04 p= ns
		F= .53 p= ns		F= .98 p= ns	
Grade 6 March 1968		$\bar{X}$= 28.00 N= 28	F= .12 p= ns	$\bar{X}$= 28.50 N= 28	

TABLE A-18-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: WORK HABITS SCORES

INDIVIDUALIZED DEPARTMENTALIZED

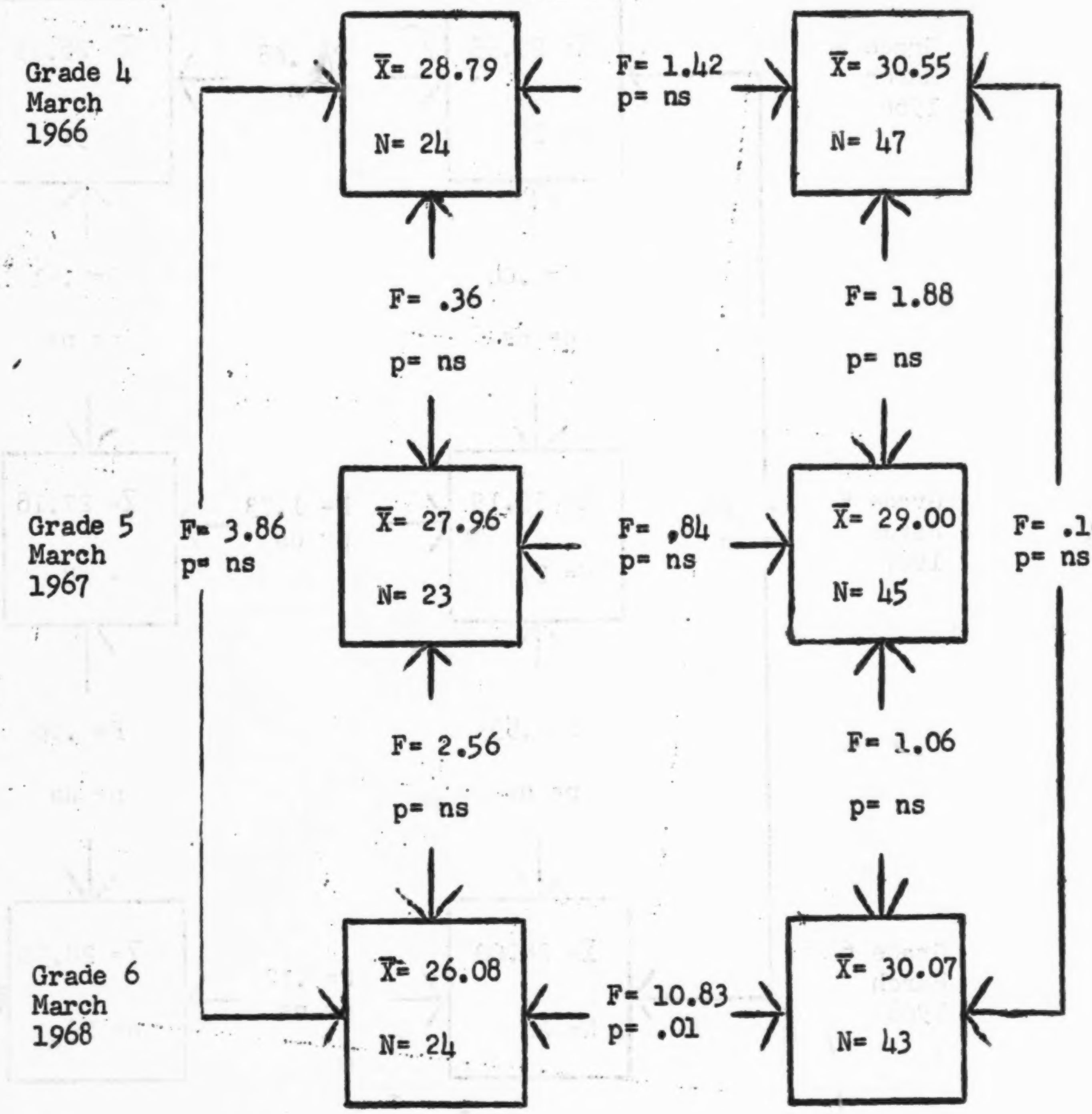

Grade 4
March
1966
X̄= 28.79
N= 24
F= 1.42
p= ns
X̄= 30.55
N= 47
F= .36
p= ns
F= 1.88
p= ns
Grade 5
March
1967
F= 3.86
p= ns
X̄= 27.96
N= 23
F= .84
p= ns
X̄= 29.00
N= 45
F= .16
p= ns
F= 2.56
p= ns
F= 1.06
p= ns
Grade 6
March
1968
X̄= 26.08
N= 24
F= 10.83
p= .01
X̄= 30.07
N= 43

FIGURE A-18

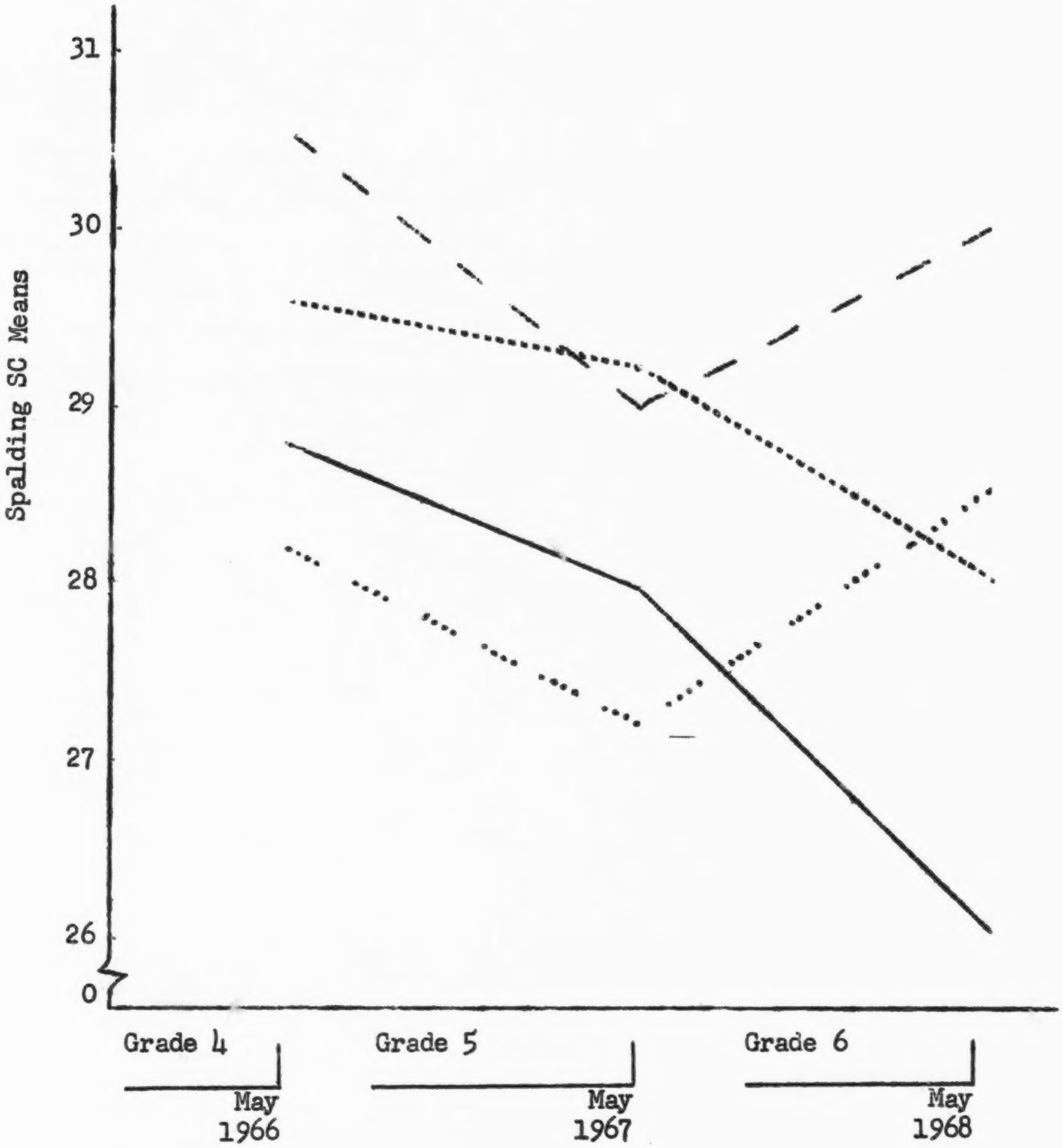


Figure A-18 Spaulding Self-Concept: Work Habits Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

························· Boys - Individualized ———— Girls - Individualized
····· ····· ····· Boys - Departmentalized — — — Girls - Departmentalized

TABLE A-19-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: MENTAL ATTITUDES SCORES

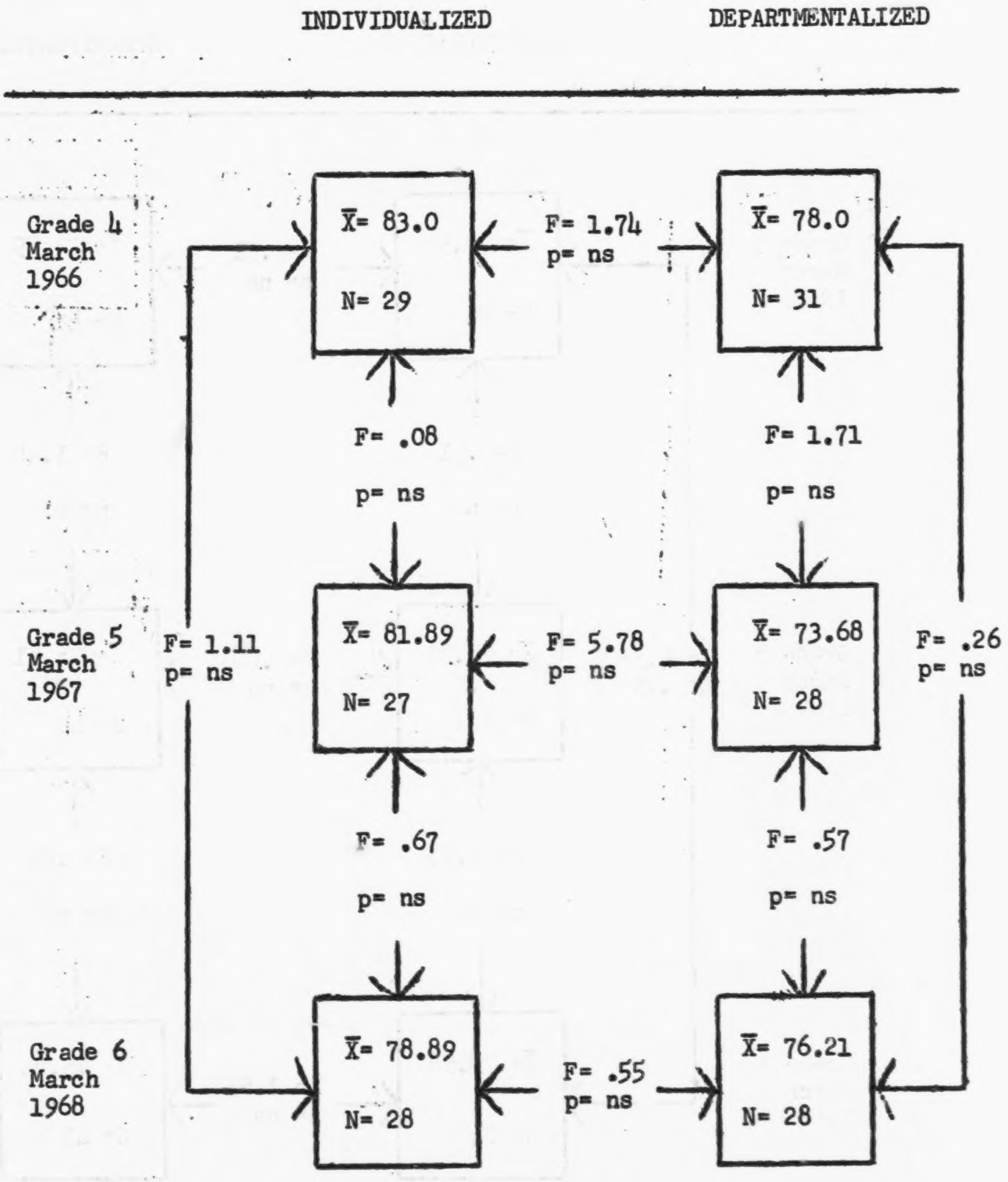

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
X̄= 83.0
N= 29
F= 1.74
p= ns
X̄= 78.0
N= 31
F= .08
p= ns
F= 1.71
p= ns
Grade 5 March 1967
F= 1.11
p= ns
X̄= 81.89
N= 27
F= 5.78
p= ns
X̄= 73.68
N= 28
F= .26
p= ns
F= .67
p= ns
F= .57
p= ns
Grade 6 March 1968
X̄= 78.89
N= 28
F= .55
p= ns
X̄= 76.21
N= 28

TABLE A-19-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: MENTAL ATTITUDES SCORES

	INDIVIDUALIZED	DEPARTMENTALIZED

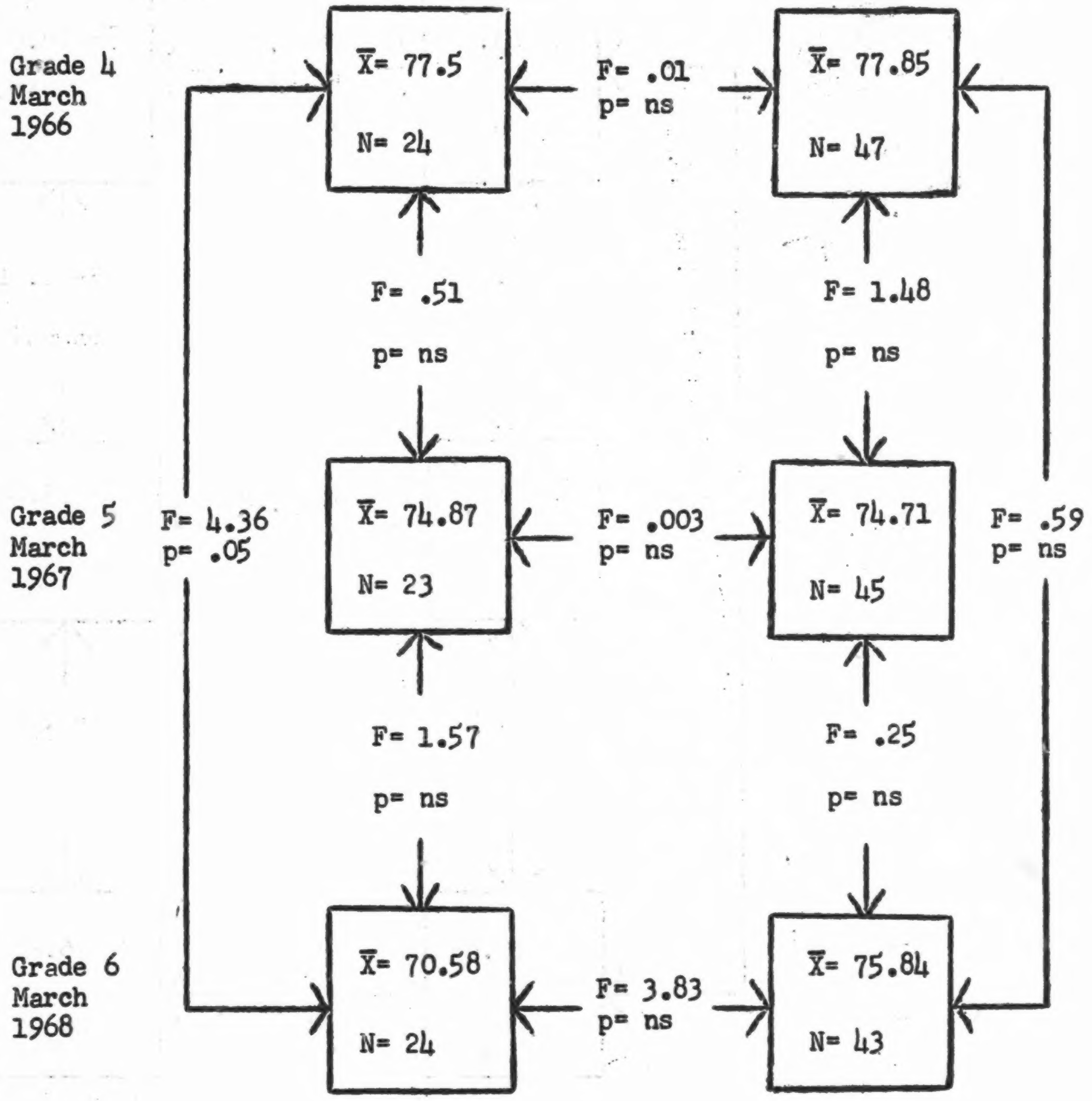

Grade 4
March
1966
X̄= 77.5
N= 24
F= .01
p= ns
X̄= 77.85
N= 47
F= .51
p= ns
F= 1.48
p= ns
Grade 5
March
1967
F= 4.36
p= .05
X̄= 74.87
N= 23
F= .003
p= ns
X̄= 74.71
N= 45
F= .59
p= ns
F= 1.57
p= ns
F= .25
p= ns
Grade 6
March
1968
X̄= 70.58
N= 24
F= 3.83
p= ns
X̄= 75.84
N= 43

FIGURE A-19

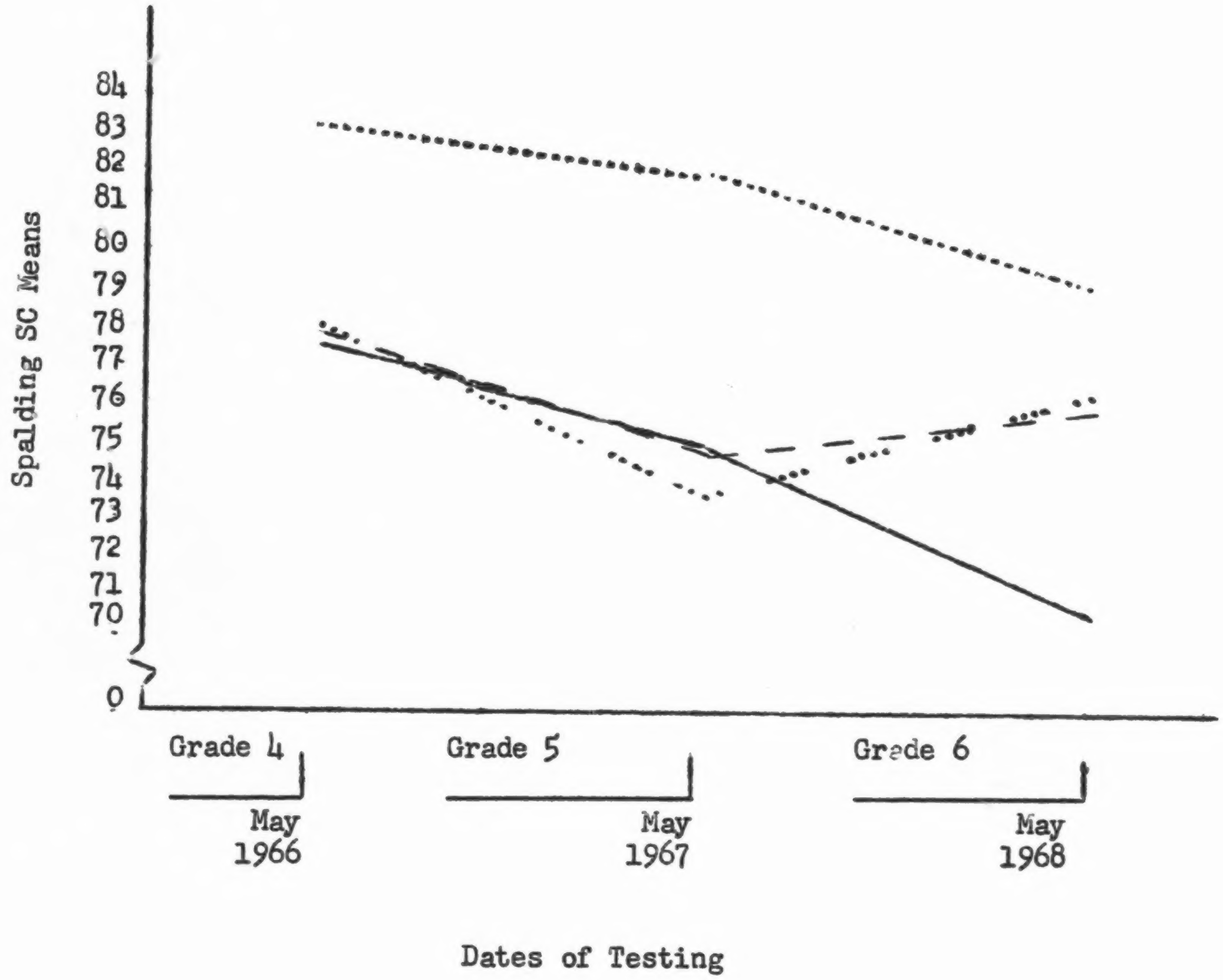


Figure A-19 Spaulding Self-Concept: Mental Attitudes Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

Dates of Testing

·················· Boys - Individualized
···· ···· ···· Boys - Departmentalized
———————— Girls - Individualized
— — — Girls - Departmentalized

TABLE A-20-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: MORAL ATTITUDES SCORES

INDIVIDUALIZED DEPARTMENTALIZED

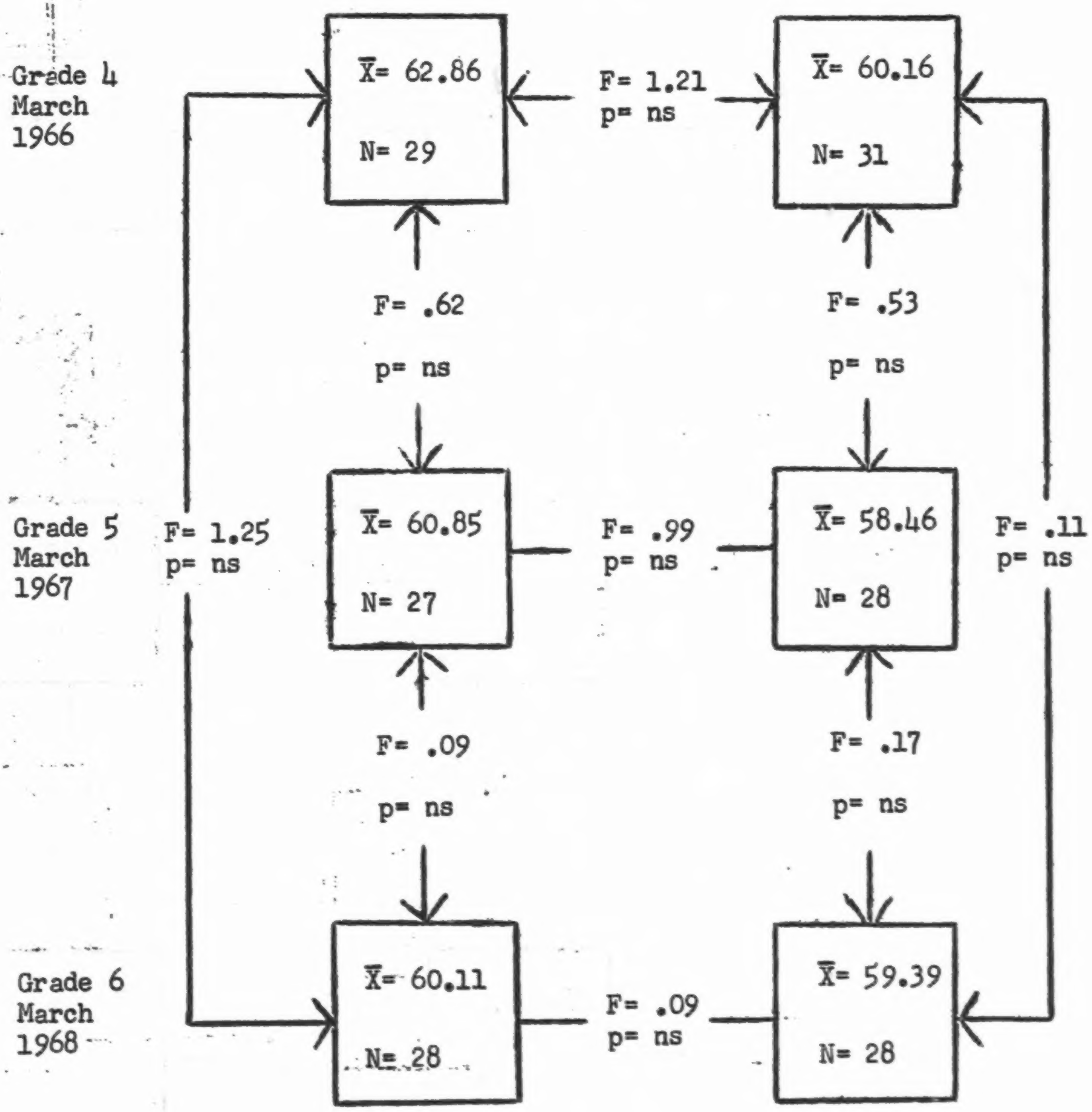

Grade 4
March
1966
$\bar{X}$= 62.86
N= 29
F= 1.21
p= ns
$\bar{X}$= 60.16
N= 31
F= .62
p= ns
F= .53
p= ns
Grade 5
March
1967
F= 1.25
p= ns
$\bar{X}$= 60.85
N= 27
F= .99
p= ns
$\bar{X}$= 58.46
N= 28
F= .11
p= ns
F= .09
p= ns
F= .17
p= ns
Grade 6
March
1968
$\bar{X}$= 60.11
N= 28
F= .09
p= ns
$\bar{X}$= 59.39
N= 28

TABLE A-20-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: MORAL ATTITUDES SCORES

		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 59.25 N= 24	F= .83 p= ns	$\bar{X}$= 61.28 N= 47	
		F= .23 p= ns		F= 1.55 p= ns	
Grade 5 March 1967	F= 3.52 p= ns	$\bar{X}$= 58.04 N= 23	F= .49 p= ns	$\bar{X}$= 59.29 N= 45	F= .99 p= ns
		F= 2.58 p= ns		F= .05 p= ns	
Grade 6 March 1968		$\bar{X}$= 54.42 N= 24	F= 7.40 p= .01	$\bar{X}$= 59.63 N= 43	

FIGURE A-20

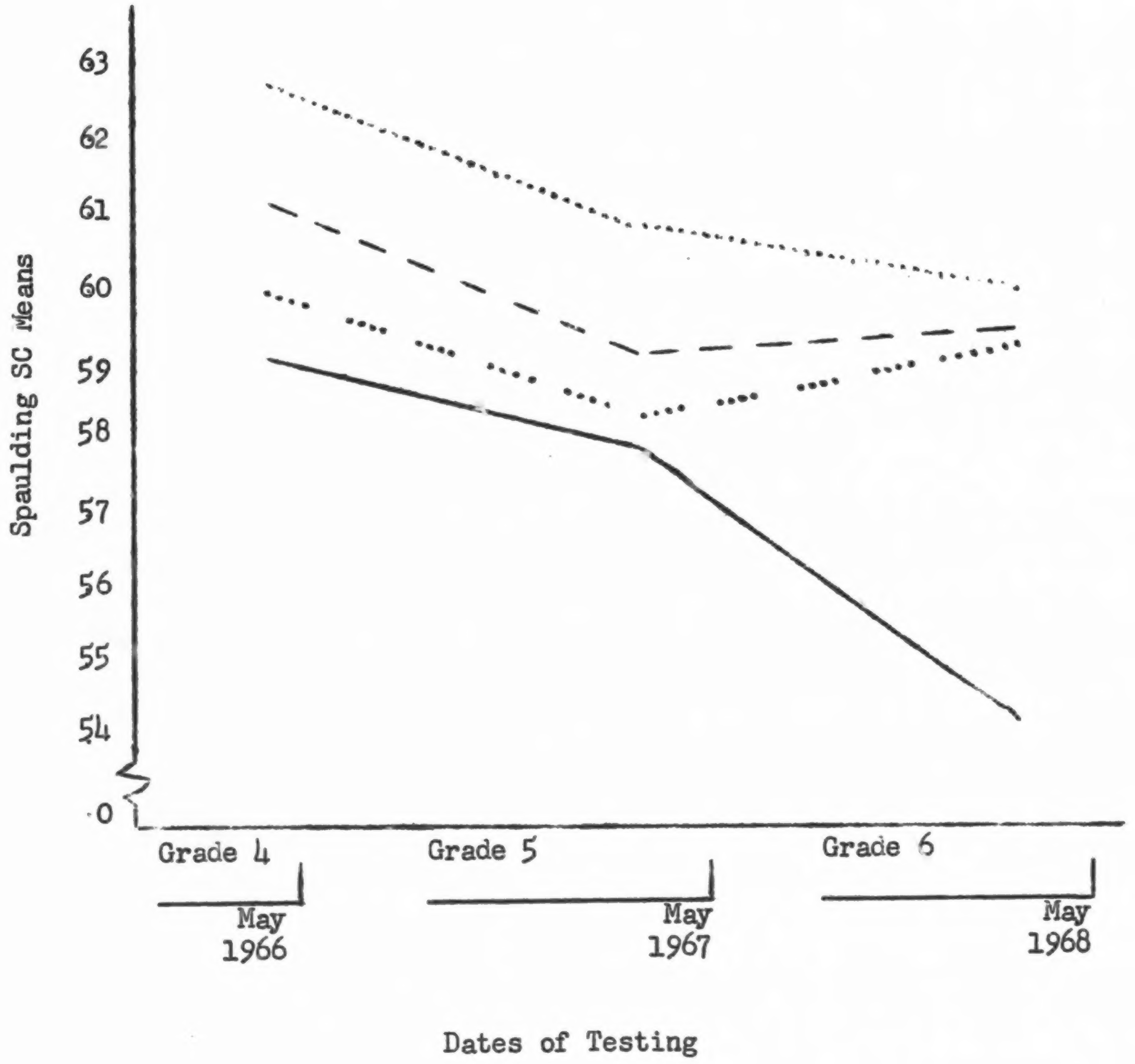


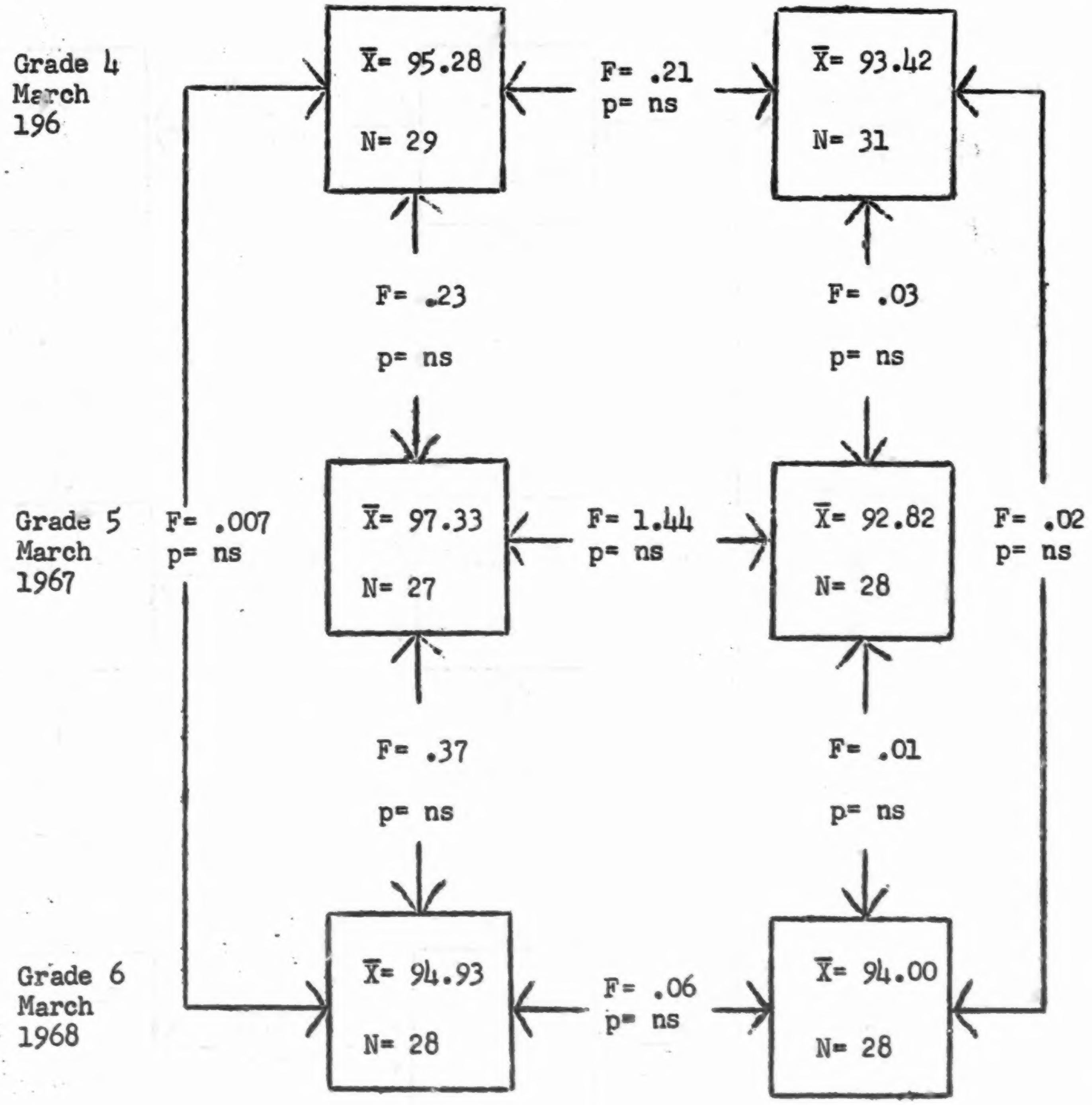
Figure A-20 Spaulding Self-Concept: Moral Attitudes Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

. . . . Boys - Individualized ———————— Girls - Individualized
.... Boys - Departmentalized — — — Girls - Departmentalized

TABLE A-21-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: HUMAN RELATIONS SCORES

INDIVIDUALIZED DEPARTMENTALIZED



Grade 4
March
196

$\bar{X}$= 95.28
N= 29

F= .21
p= ns

$\bar{X}$= 93.42
N= 31

F= .23
p= ns

F= .03
p= ns

Grade 5
March
1967

F= .007
p= ns

$\bar{X}$= 97.33
N= 27

F= 1.44
p= ns

$\bar{X}$= 92.82
N= 28

F= .02
p= ns

F= .37
p= ns

F= .01
p= ns

Grade 6
March
1968

$\bar{X}$= 94.93
N= 28

F= .06
p= ns

$\bar{X}$= 94.00
N= 28

TABLE A-21-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: HUMAN RELATIONS SCORES

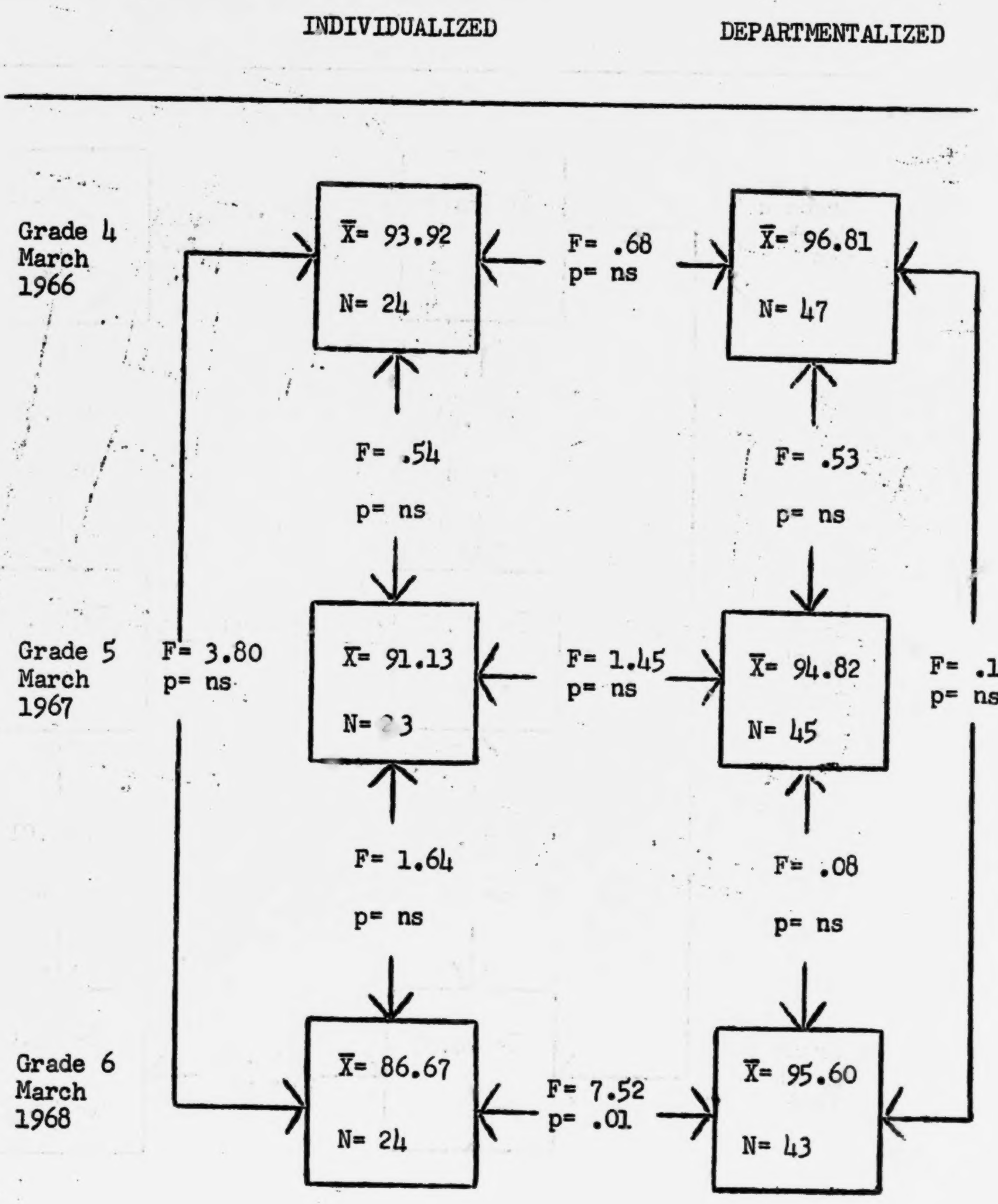

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
X̄= 93.92
N= 24
F= .68
p= ns
X̄= 96.81
N= 47
F= .54
p= ns
F= .53
p= ns
Grade 5
March
1967
F= 3.80
p= ns
X̄= 91.13
N= 23
F= 1.45
p= ns
X̄= 94.82
N= 45
F= .17
p= ns
F= 1.64
p= ns
F= .08
p= ns
Grade 6
March
1968
X̄= 86.67
N= 24
F= 7.52
p= .01
X̄= 95.60
N= 43

FIGURE A-21

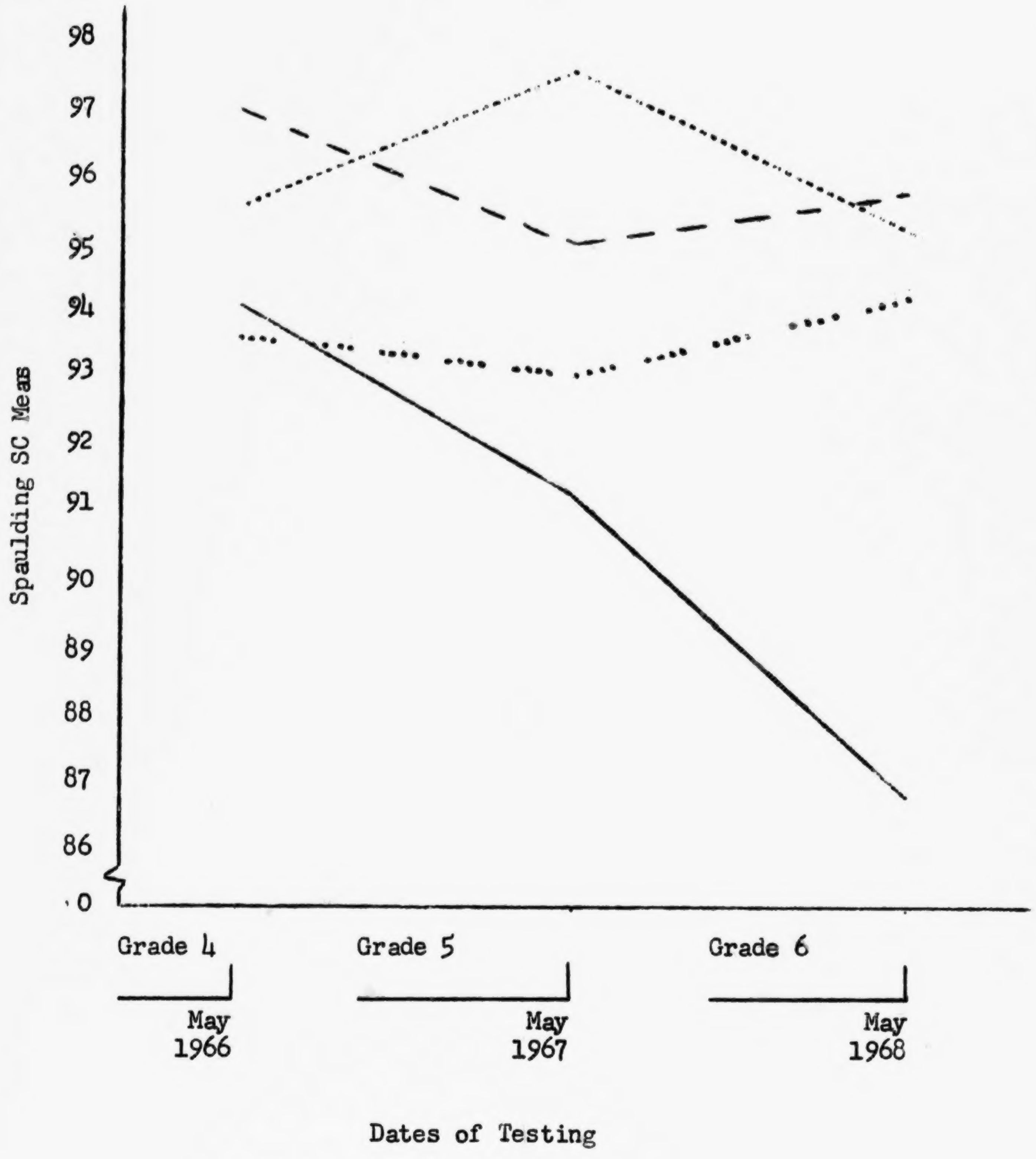
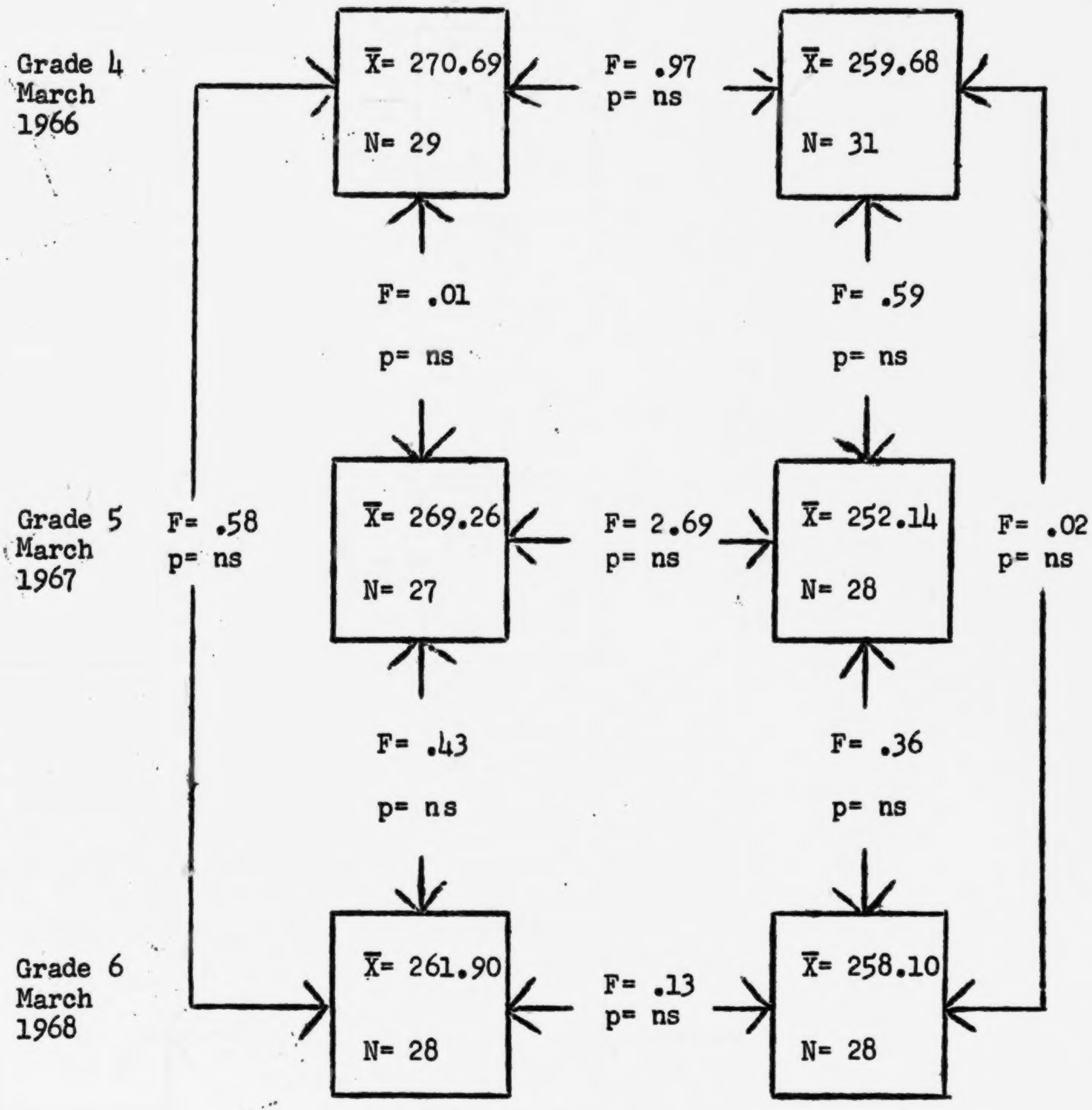


Figure A-21 Spaulding Self-Concept: Human Relations Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

.......................Boys - Individualized ____________Girls - Individualized
--- ---- ---- ----Boys - Departmentalized _ _ __Girls - Departmentalized

TABLE A-22-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: TOTAL SCORES



		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 270.69 N= 29	F= .97 p= ns	$\bar{X}$= 259.68 N= 31	
		F= .01 p= ns		F= .59 p= ns	
Grade 5 March 1967	F= .58 p= ns	$\bar{X}$= 269.26 N= 27	F= 2.69 p= ns	$\bar{X}$= 252.14 N= 28	F= .02 p= ns
		F= .43 p= ns		F= .36 p= ns	
Grade 6 March 1968		$\bar{X}$= 261.90 N= 28	F= .13 p= ns	$\bar{X}$= 258.10 N= 28	

TABLE A-22-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SPAULDING SELF-CONCEPT: TOTAL SCORES

INDIVIDUALIZED DEPARTMENTALIZED

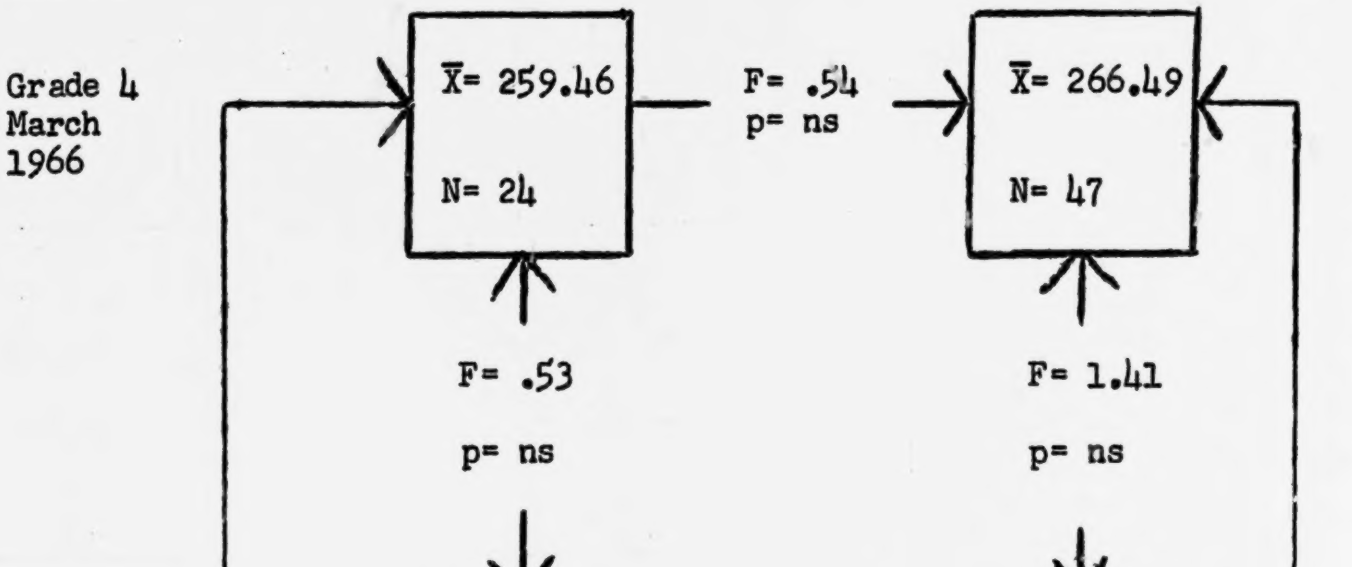

Grade 4
March
1966
X̄= 259.46
N= 24
F= .54
p= ns
X̄= 266.49
N= 47
F= .53
p= ns
F= 1.41
p= ns
Grade 5
March
1967
F= 4.67
p= .05
X̄= 252.0
N= 23
F= .53
p= ns
X̄= 257.82
N= 45
F= .49
p= ns
F= 2.33
p= ns
F= .24
p= ns
Grade 6
March
1968
X̄= 237.80
N= 24
F= 7.94
p= .01
X̄= 261.14
N= 43

FIGURE A-22

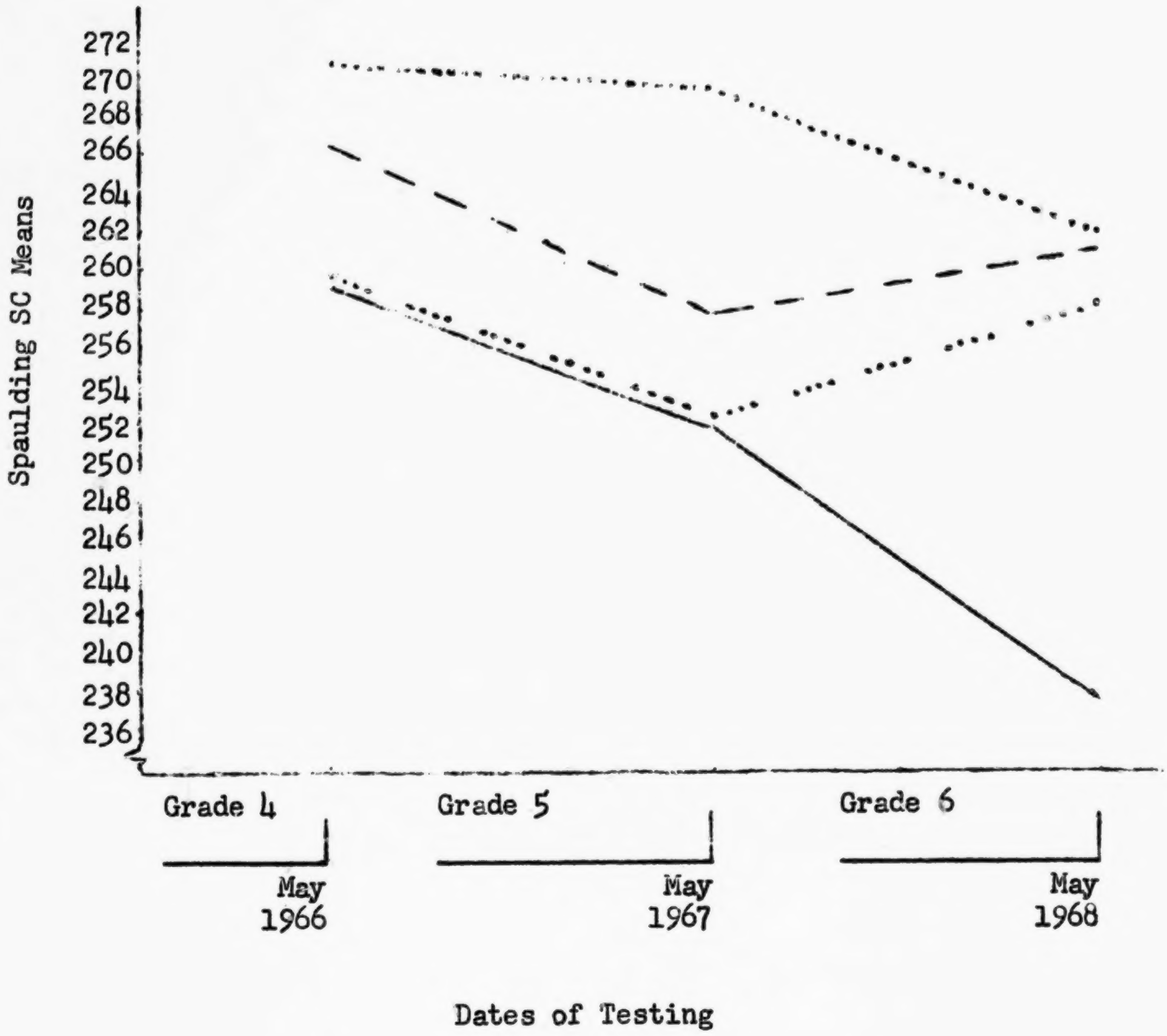


Figure A-22 Spaulding Self-Concept: Total Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

· · · · · · · · · · · · · · · Boys - Individualized ——————— Girls - Individualized
· · · ·   · · · ·   · · · · Boys - Departmentalized — — — Girls - Departmentalized

TABLE A-23-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS
FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES
ON BIALER-CROMWELL LOCUS OF CONTROL SCORES

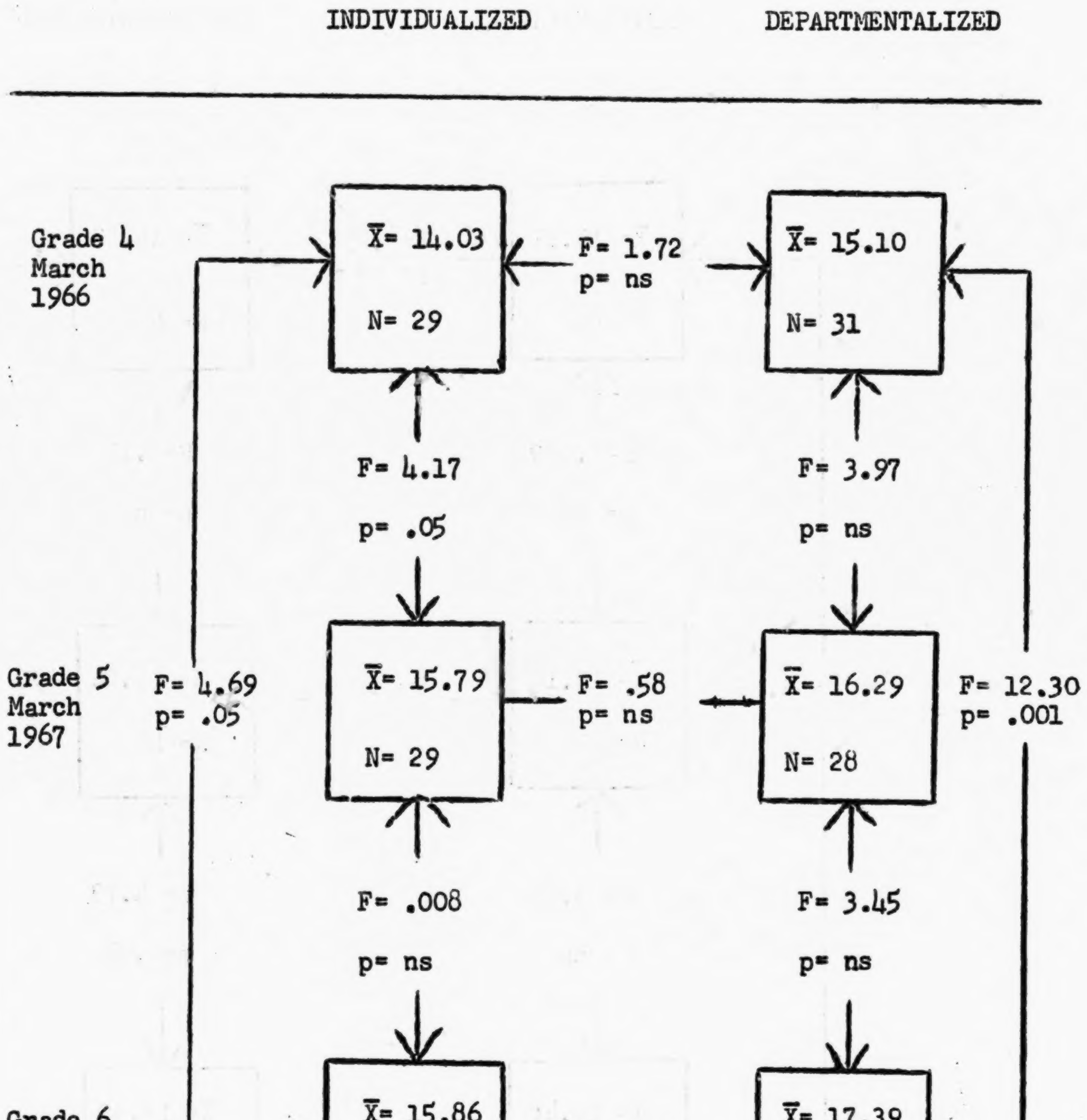
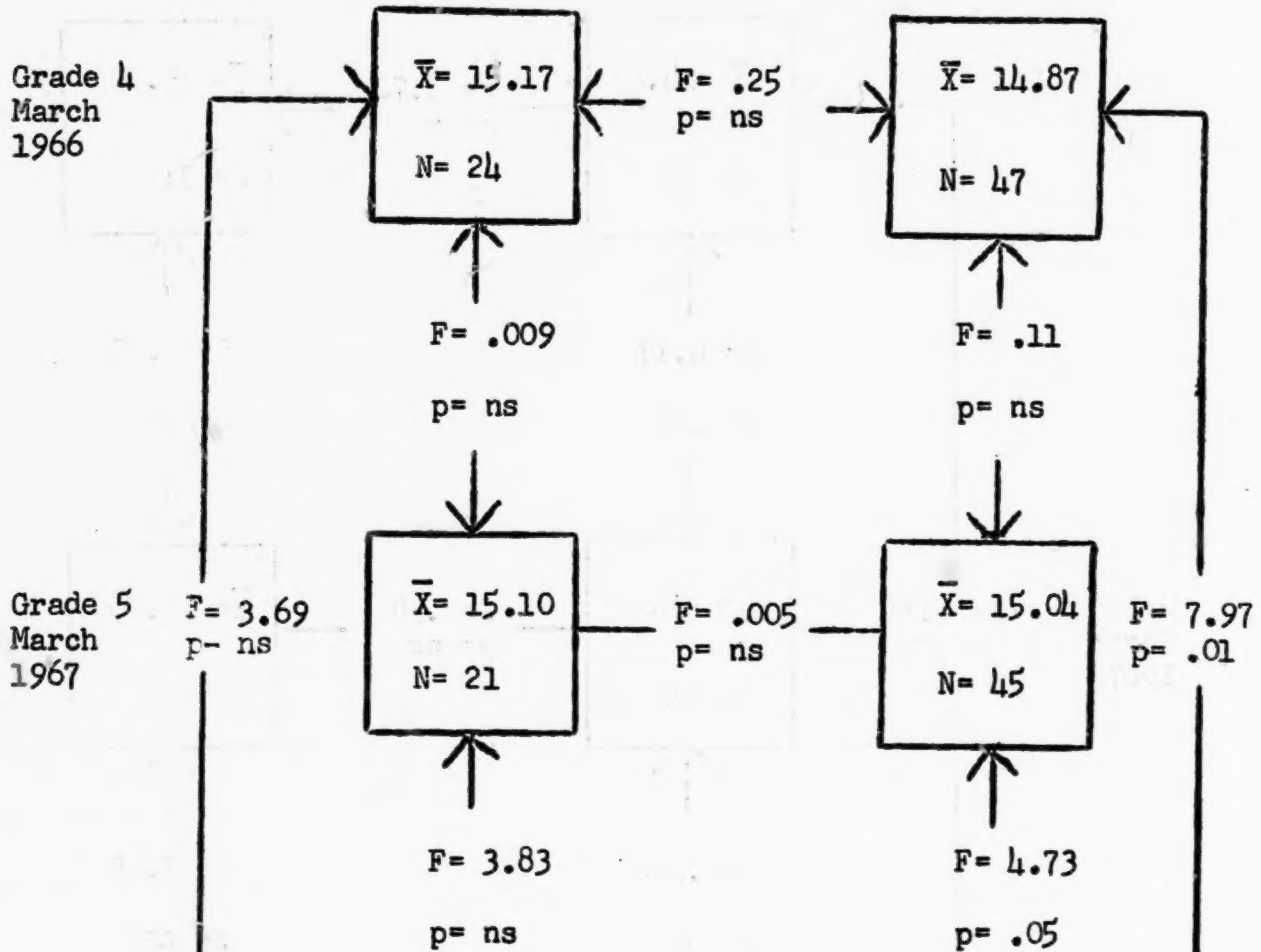

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
X̄= 14.03
N= 29
F= 1.72
p= ns
X̄= 15.10
N= 31
F= 4.17
p= .05
F= 3.97
p= ns
Grade 5
March
1967
F= 4.69
p= .05
X̄= 15.79
N= 29
F= .58
p= ns
X̄= 16.29
N= 28
F= 12.30
p= .001
F= .008
p= ns
F= 3.45
p= ns
Grade 6
March
1968
X̄= 15.86
N= 28
F= 5.18
p= .05
X̄= 17.39
N= 28

TABLE A-23-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON BIALER-CROMWELL LOCUS OF CONTROL SCORES

INDIVIDUALIZED DEPARTMENTALIZED



Grade 4
March
1966

X̄= 15.17
N= 24

F= .25
p= ns

X̄= 14.87
N= 47

F= .009
p= ns

F= .11
p= ns

Grade 5
March
1967

F= 3.69
p- ns

X̄= 15.10
N= 21

F= .005
p= ns

X̄= 15.04
N= 45

F= 7.97
p= .01

F= 3.83
p= ns

F= 4.73
p= .05

Grade 6
March
1968

X̄= 16.46
N= 24

F= .07
p= ns

X̄= 16.30
N= 40

FIGURE A-23

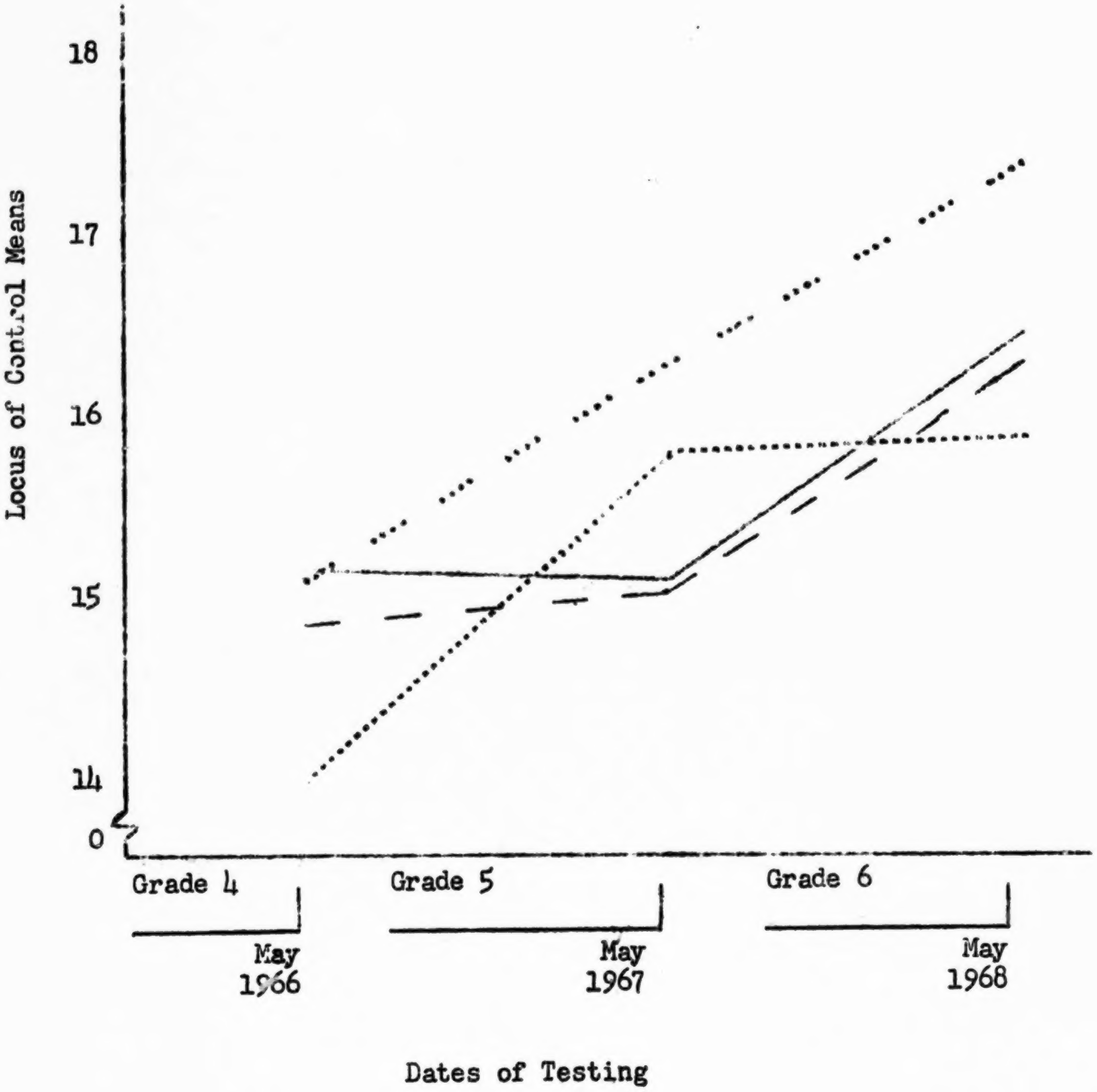


Figure A-23 Bialer-Cromwell Locus of Control Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

···················Boys - Individualized ————————Girls - Individualized
······ ····· ····Boys - Departmentalized — — —Girls - Departmentalized

TABLE A-24-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS
FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES
ON FLANDERS DEPENDENCE-PRONENESS SCORES

INDIVIDUALIZED DEPARTMENTALIZED

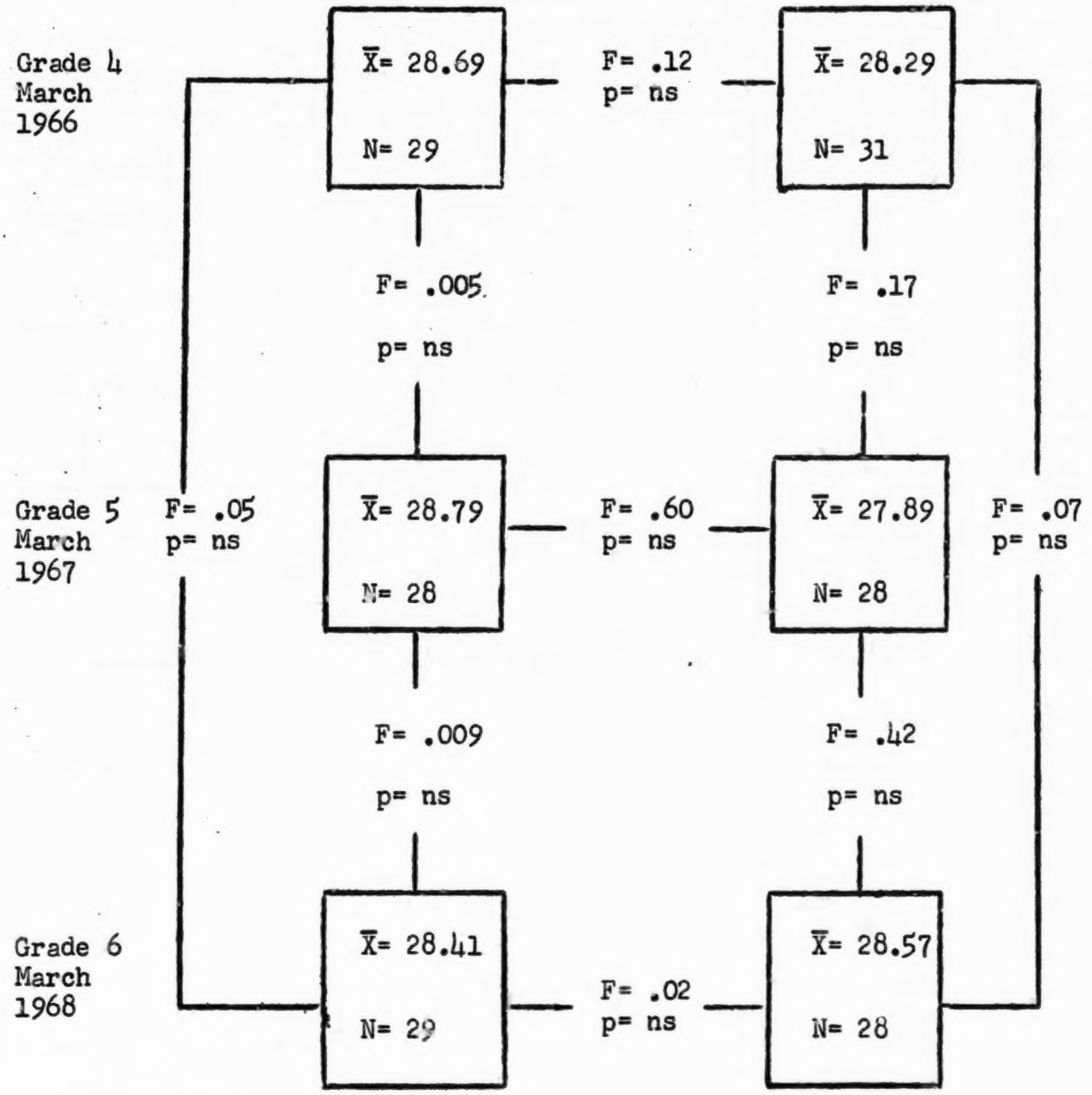

Grade 4
March
1966
$\bar{X}$= 28.69
N= 29
F= .12
p= ns
$\bar{X}$= 28.29
N= 31
F= .005
p= ns
F= .17
p= ns
Grade 5
March
1967
F= .05
p= ns
$\bar{X}$= 28.79
N= 28
F= .60
p= ns
$\bar{X}$= 27.89
N= 28
F= .07
p= ns
F= .009
p= ns
F= .42
p= ns
Grade 6
March
1968
$\bar{X}$= 28.41
N= 29
F= .02
p= ns
$\bar{X}$= 28.57
N= 28

TABLE A-24-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON FLANDERS DEPENDENCE-PRONENESS SCORES

		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 28.88 N= 24	F= .21 p= ns	$\bar{X}$= 29.32 N= 47	
		F= 2.08 p= ns		F= 2.37 p= ns	
Grade 5 March 1967	F= .09 p= ns	$\bar{X}$= 30.52 N= 23	F= .01 p= ns	$\bar{X}$= 30.42 N= 45	F= 3.26 p= ns
		F= 3.18 p= ns		F= .22 p= ns	
Grade 6 March 1968		$\bar{X}$= 28.54 N= 24	F= 5.73 p= .05	X $\bar{X}$= 30.74 N= 43	

FIGURE A-24

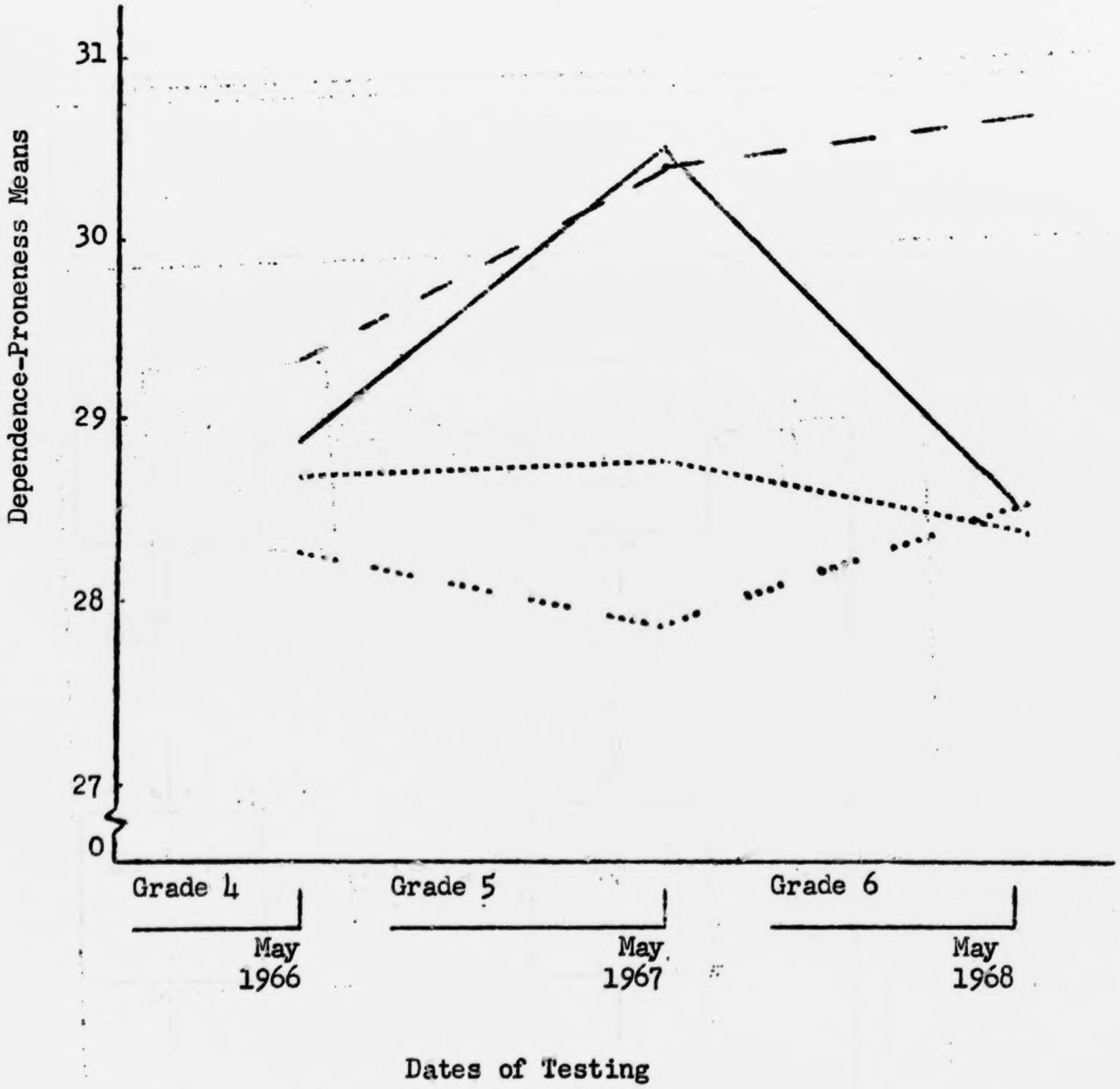
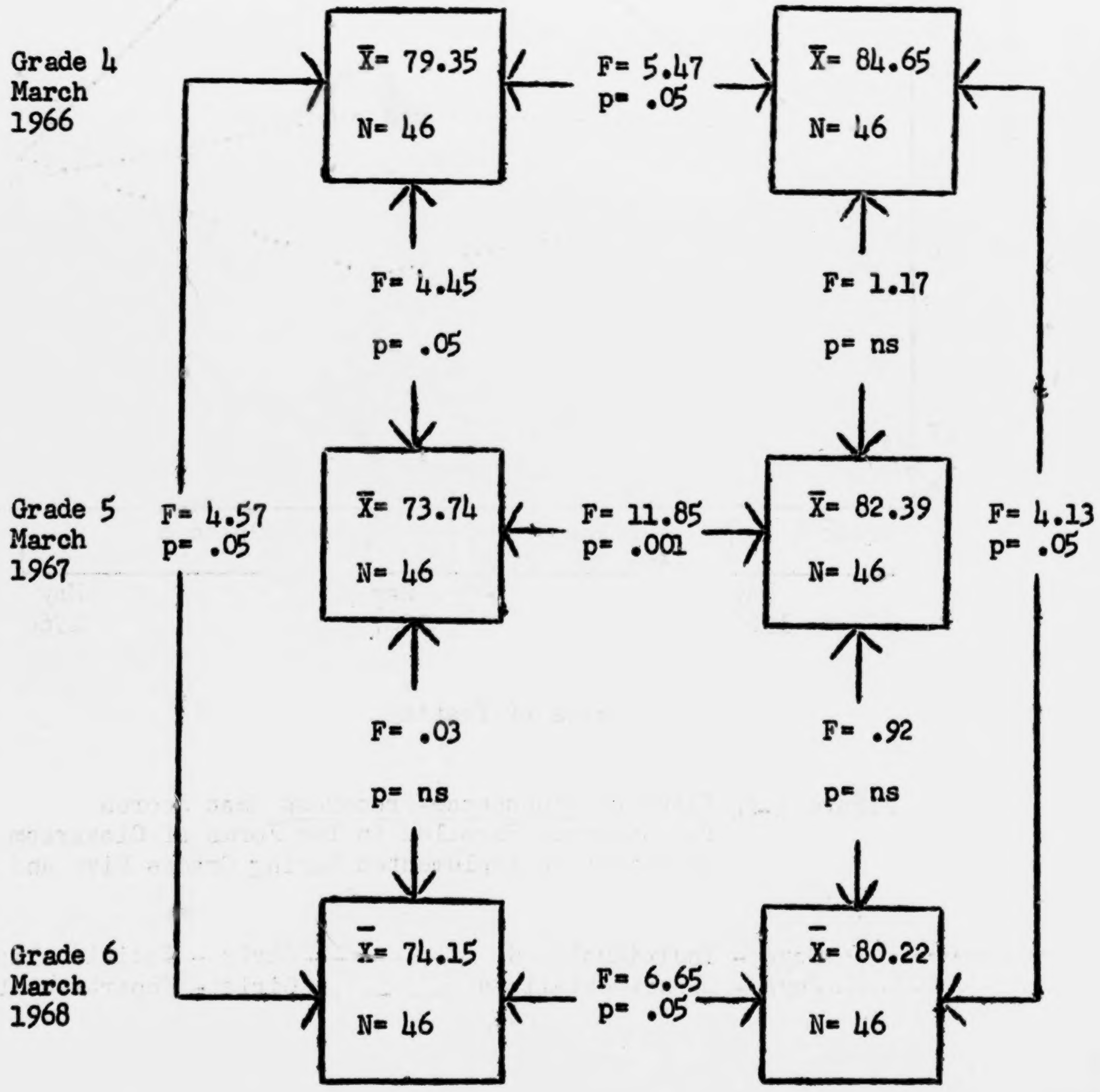


Figure A-24 Flanders Dependence-Proneness Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

.... Boys - Individualized ———— Girls - Individualized
....Boys - Departmentalized — — — Girls - Departmentalized

TABLE A-25

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR RANDOMLY SELECTED SUBJECTS (BOTH SEXES) BETWEEN PROGRAMS AND BETWEEN GRADES ON "LIKING FOR OTHERS" RATINGS FROM SEARS SOCIOGRAM



		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 79.35 N= 46	F= 5.47 p= .05	$\bar{X}$= 84.65 N= 46	
		F= 4.45 p= .05		F= 1.17 p= ns	
Grade 5 March 1967	F= 4.57 p= .05	$\bar{X}$= 73.74 N= 46	F= 11.85 p= .001	$\bar{X}$= 82.39 N= 46	F= 4.13 p= .05
		F= .03 p= ns		F= .92 p= ns	
Grade 6 March 1968		$\bar{X}$= 74.15 N= 46	F= 6.65 p= .05	$\bar{X}$= 80.22 N= 46	

FIGURE A-25

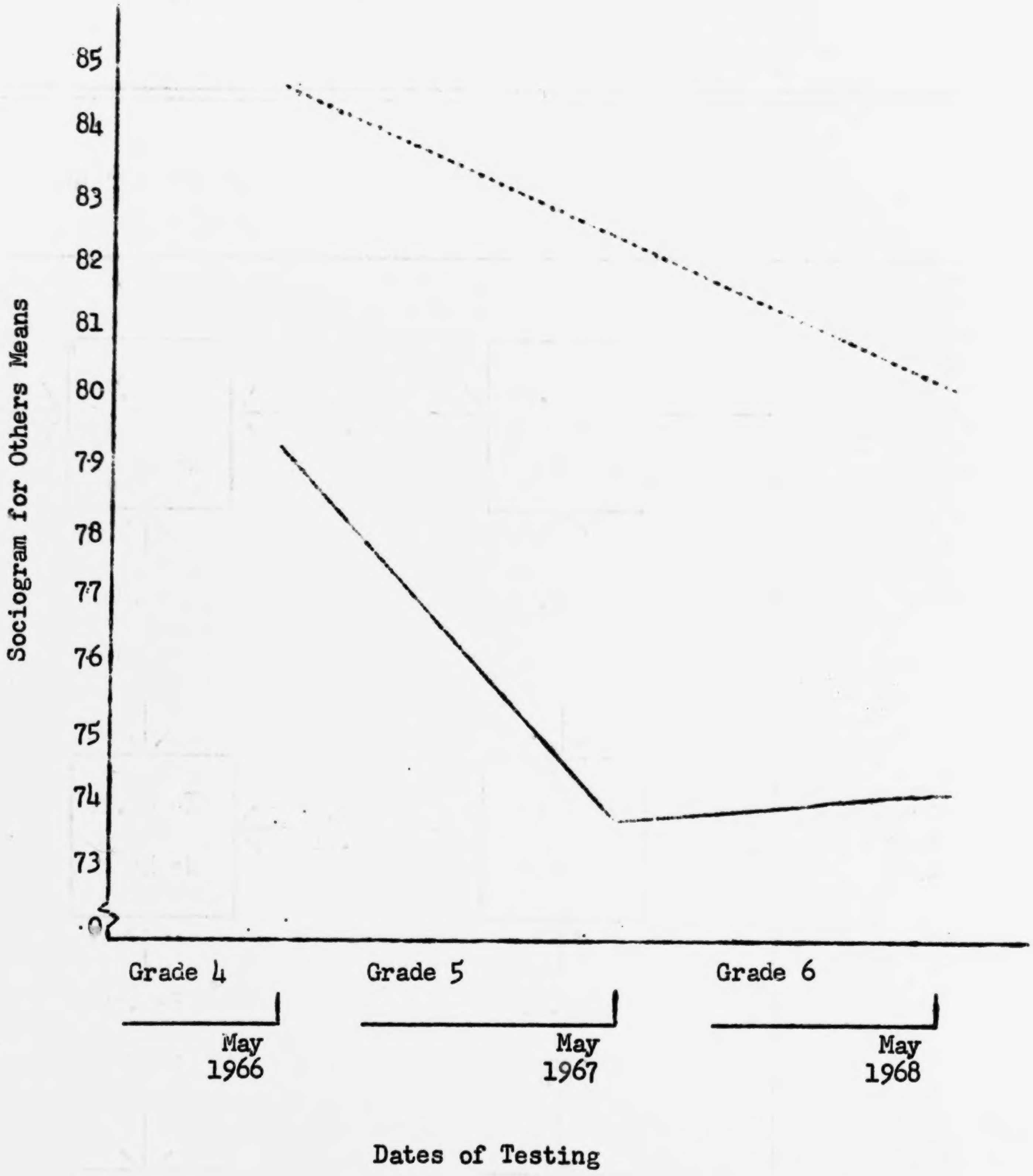


Figure A-25 Sears Sociogram Liking for Others Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

Individualized (Boys and girls) ⋯⋯⋯⋯ Departmentalized (Boys and Girls)

TABLE A-26

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR RANDOMLY SELECTED SUBJECTS (BOTH SEXES) BETWEEN PROGRAMS AND BETWEEN GRADES ON "LIKING BY OTHERS" RATINGS FROM SEARS SOCIOGRAM

INDIVIDUALIZED DEPARTMENTALIZED

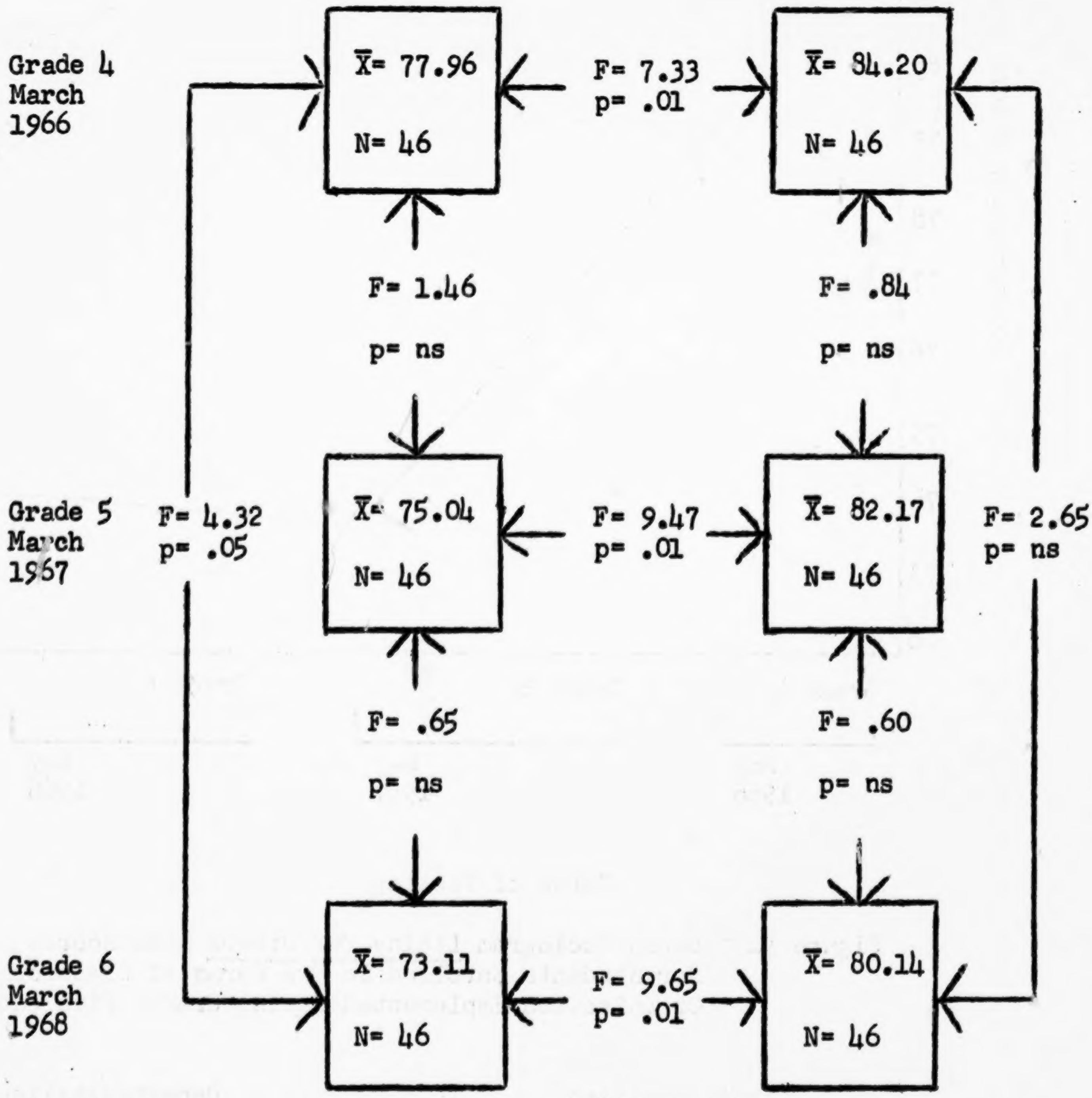

Grade 4
March
1966
$\bar{X}$= 77.96
N= 46
F= 7.33
p= .01
$\bar{X}$= 84.20
N= 46
F= 1.46
p= ns
F= .84
p= ns
Grade 5
March
1967
F= 4.32
p= .05
$\bar{X}$= 75.04
N= 46
F= 9.47
p= .01
$\bar{X}$= 82.17
N= 46
F= 2.65
p= ns
F= .65
p= ns
F= .60
p= ns
Grade 6
March
1968
$\bar{X}$= 73.11
N= 46
F= 9.65
p= .01
$\bar{X}$= 80.14
N= 46

FIGURE A-26

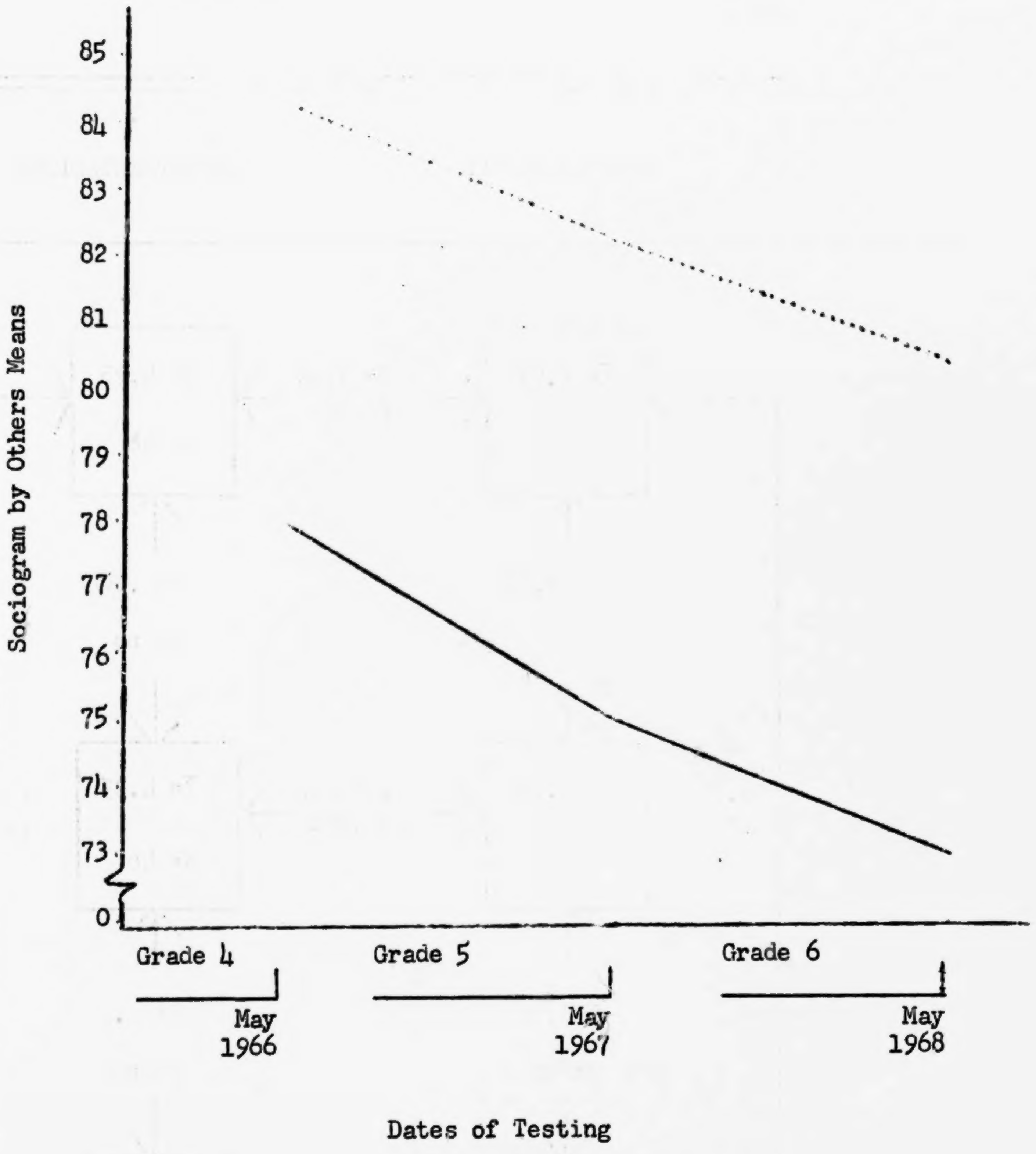


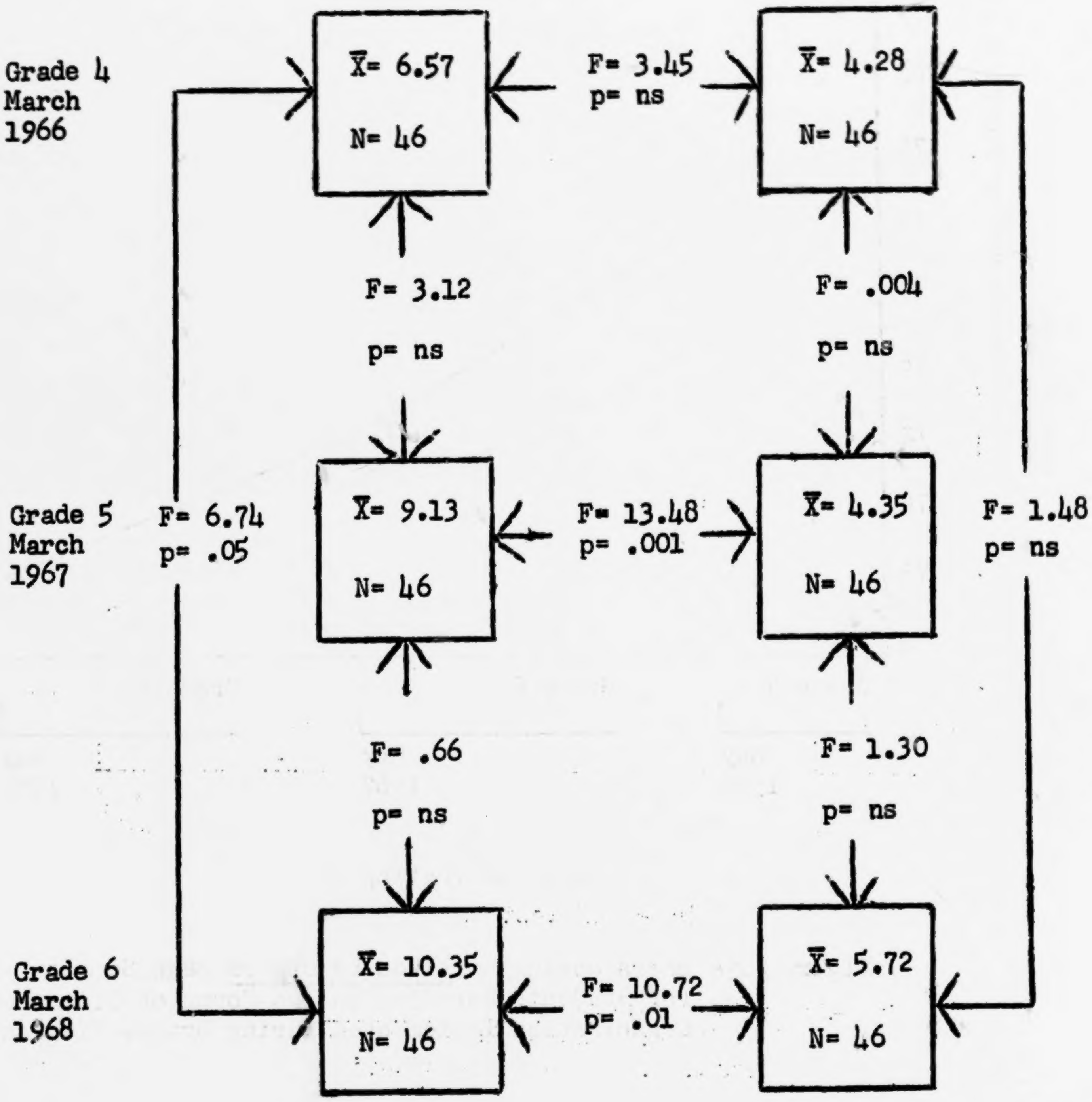
Figure A-26 Sears Sociogram Liked by Others Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

——— Individualized (Boys and Girls)

· · · · · · · · · Departmentalized (Boys and Girls)

TABLE A-27

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR RANDOMLY SELECTED SUBJECTS (BOTH SEXES) BETWEEN PROGRAMS AND BETWEEN GRADES ON "ISOLATE RATINGS" FROMSEARS SOCIOGRAM



		INDIVIDUALIZED		DEPARTMENTALIZED	
Grade 4 March 1966		$\bar{X}$= 6.57 N= 46	F= 3.45 p= ns	$\bar{X}$= 4.28 N= 46	
		F= 3.12 p= ns		F= .004 p= ns	
Grade 5 March 1967	F= 6.74 p= .05	$\bar{X}$= 9.13 N= 46	F= 13.48 p= .001	$\bar{X}$= 4.35 N= 46	F= 1.48 p= ns
		F= .66 p= ns		F= 1.30 p= ns	
Grade 6 March 1968		$\bar{X}$= 10.35 N= 46	F= 10.72 p= .01	$\bar{X}$= 5.72 N= 46	

FIGURE A-27

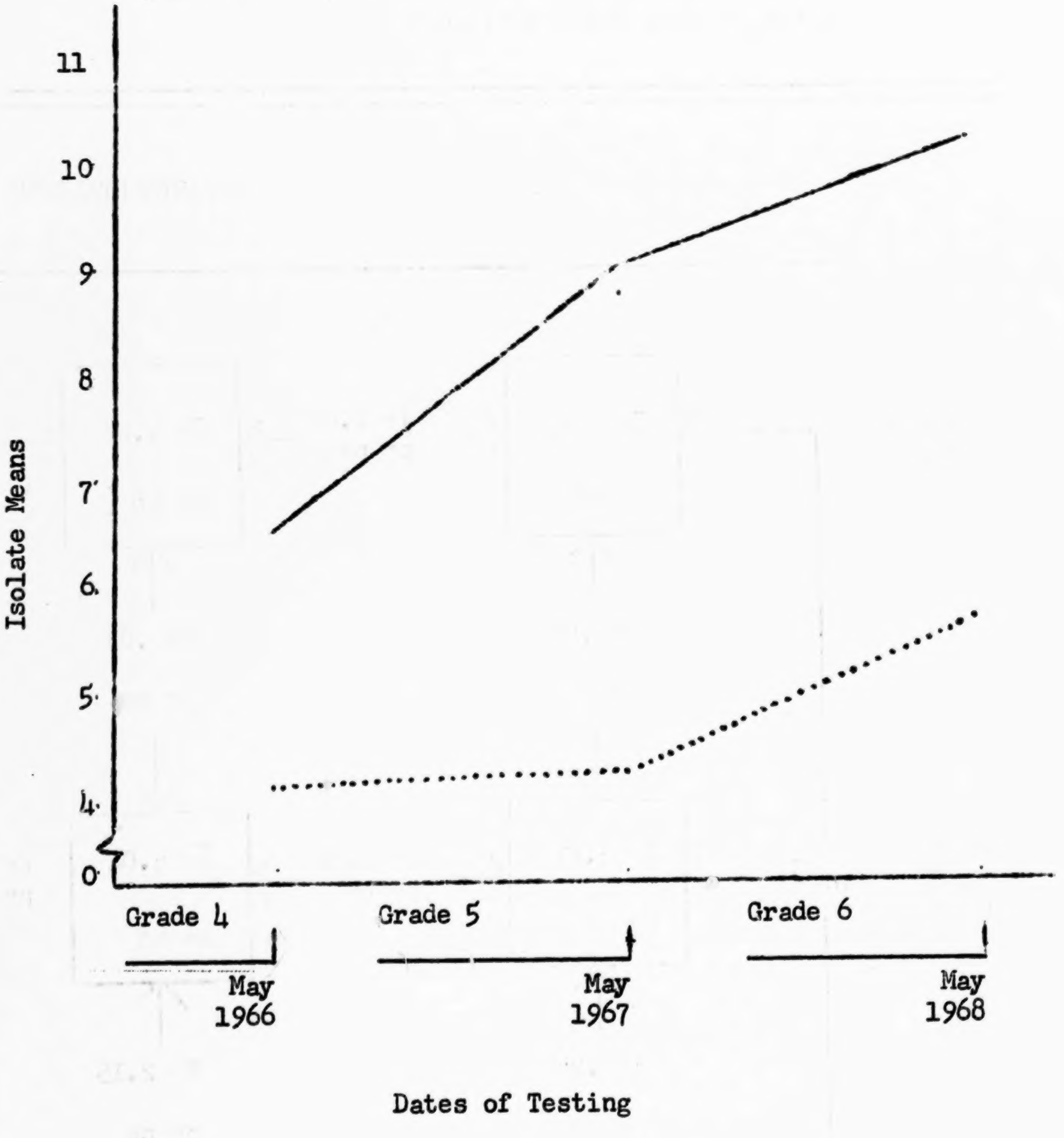


Figure A-27 Sears Sociogram Isolate Ratings Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

——— Individualized (Boys and Girls)

·················· Departmentalized (Boys and Girls)

TABLE A-28

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR RANDOMLY SELECTED SUBJECTS (BOTH SEXES) BETWEEN PROGRAMS AND BETWEEN GRADES ON "SELF EVALUATION RATINGS" FROM SEARS SOCIOGRAM

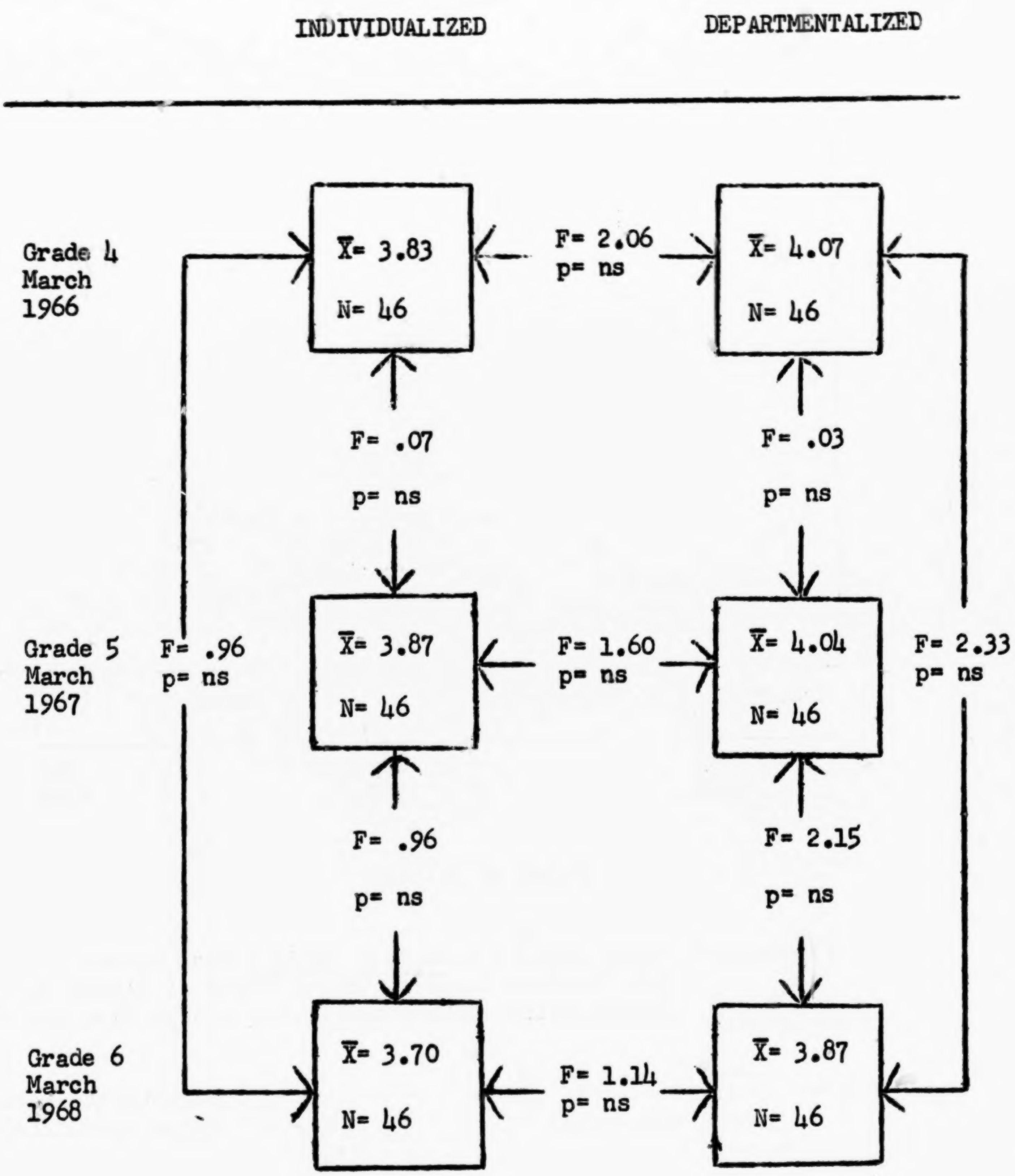

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
$\bar{X}$= 3.83
N= 46
F= 2.06
p= ns
$\bar{X}$= 4.07
N= 46
F= .07
p= ns
F= .03
p= ns
Grade 5 March 1967
F= .96
p= ns
$\bar{X}$= 3.87
N= 46
F= 1.60
p= ns
$\bar{X}$= 4.04
N= 46
F= 2.33
p= ns
F= .96
p= ns
F= 2.15
p= ns
Grade 6 March 1968
$\bar{X}$= 3.70
N= 46
F= 1.14
p= ns
$\bar{X}$= 3.87
N= 46

FIGURE A-28

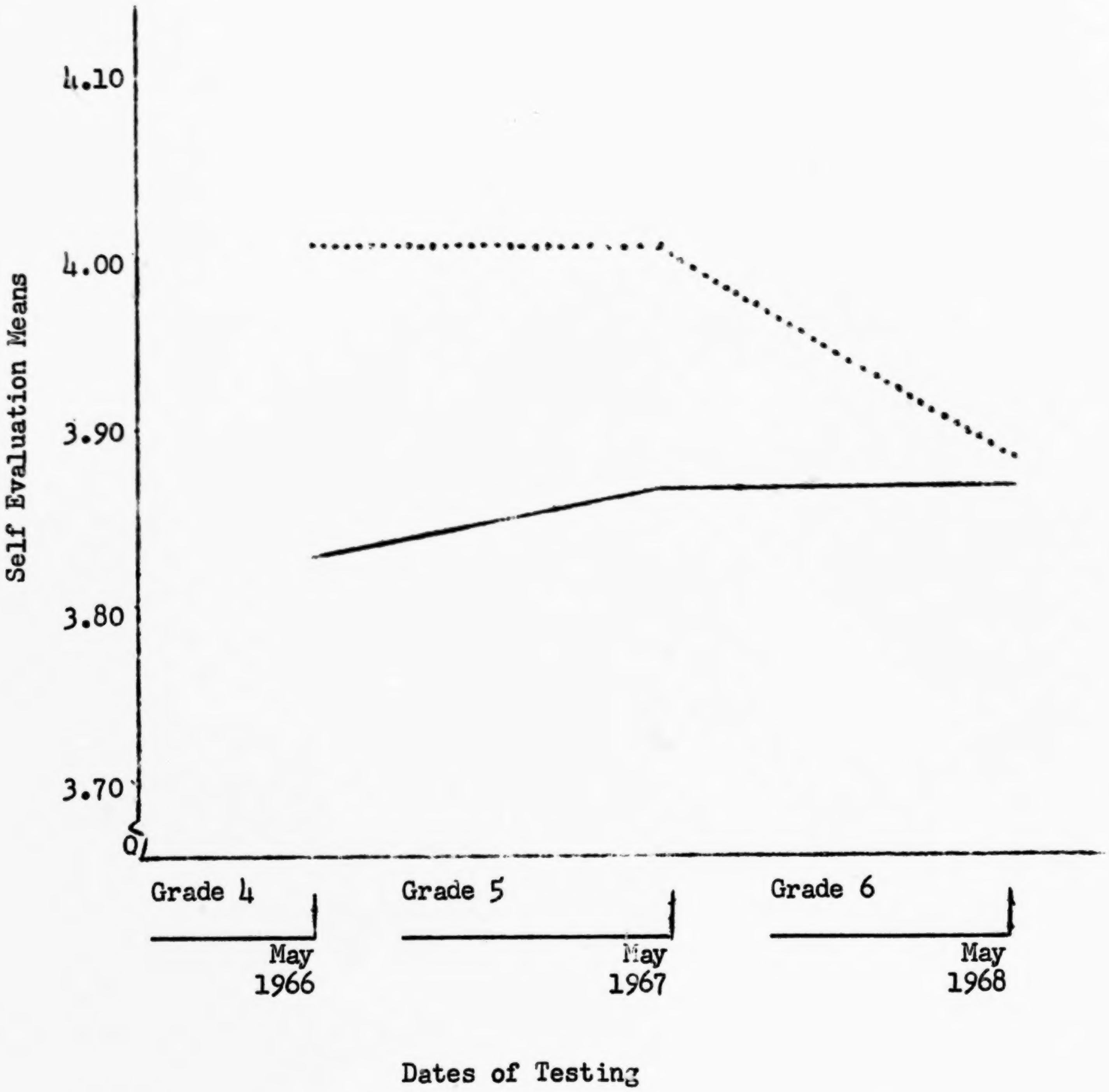


Figure A-28 Sears Sociogram Self Evaluation Ratings Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

——— Individualized (Boys and Girls)

.... Departmentalized (Boys and Girls)

TABLE A-29-m

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR BOYS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS LIKING FOR SCHOOL ACTIVITIES SCORES

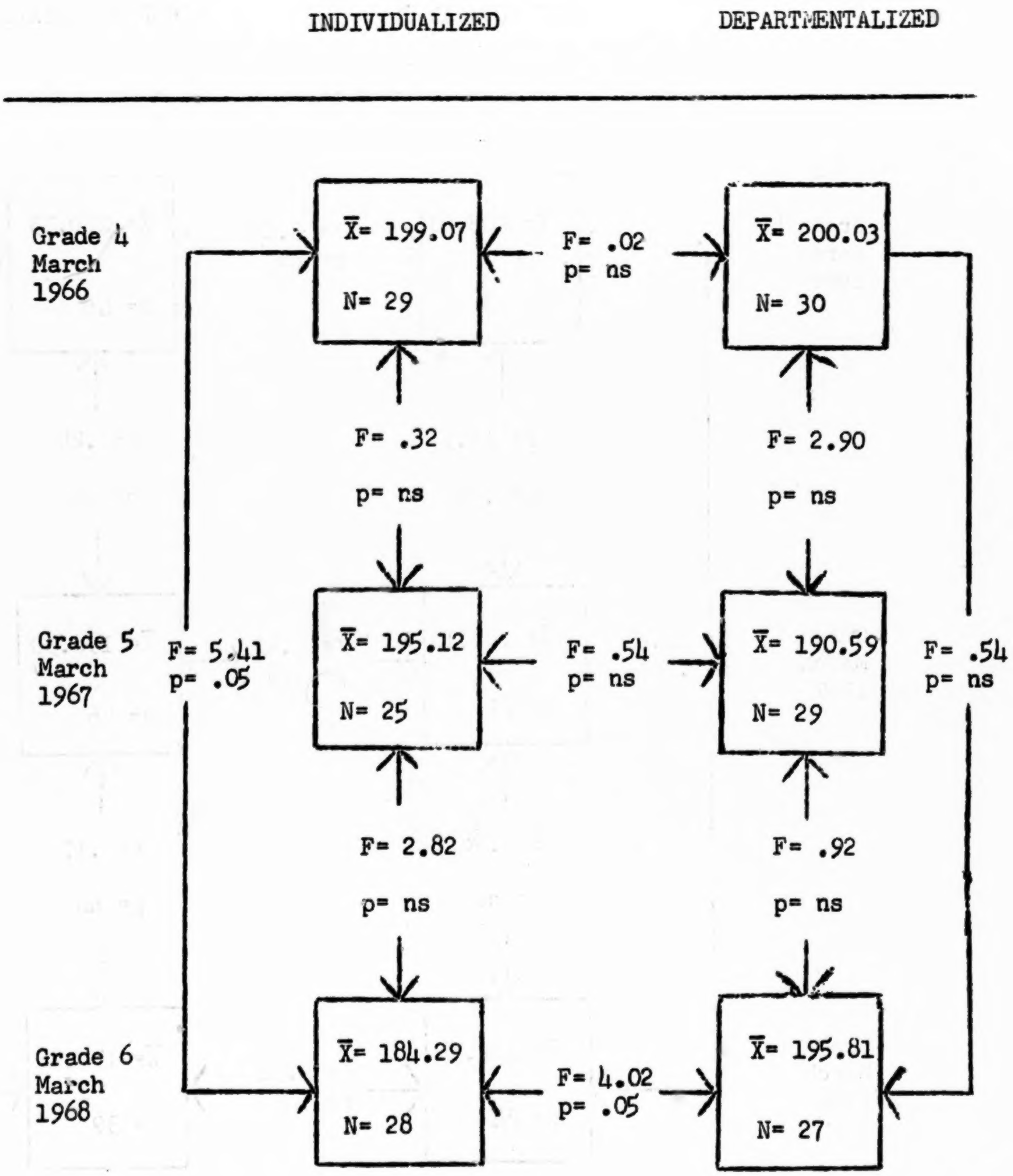

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4
March
1966
$\overline{X}$= 199.07
N= 29
F= .02
p= ns
$\overline{X}$= 200.03
N= 30
F= .32
p= ns
F= 2.90
p= ns
Grade 5
March
1967
F= 5.41
p= .05
$\overline{X}$= 195.12
N= 25
F= .54
p= ns
$\overline{X}$= 190.59
N= 29
F= .54
p= ns
F= 2.82
p= ns
F= .92
p= ns
Grade 6
March
1968
$\overline{X}$= 184.29
N= 28
F= 4.02
p= .05
$\overline{X}$= 195.81
N= 27

TABLE A-29-f

SUMMARY OF ONE WAY ANALYSIS OF VARIANCE RESULTS FOR GIRLS BETWEEN PROGRAMS AND BETWEEN GRADES ON SEARS LIKING FOR SCHOOL ACTIVITIES SCORES

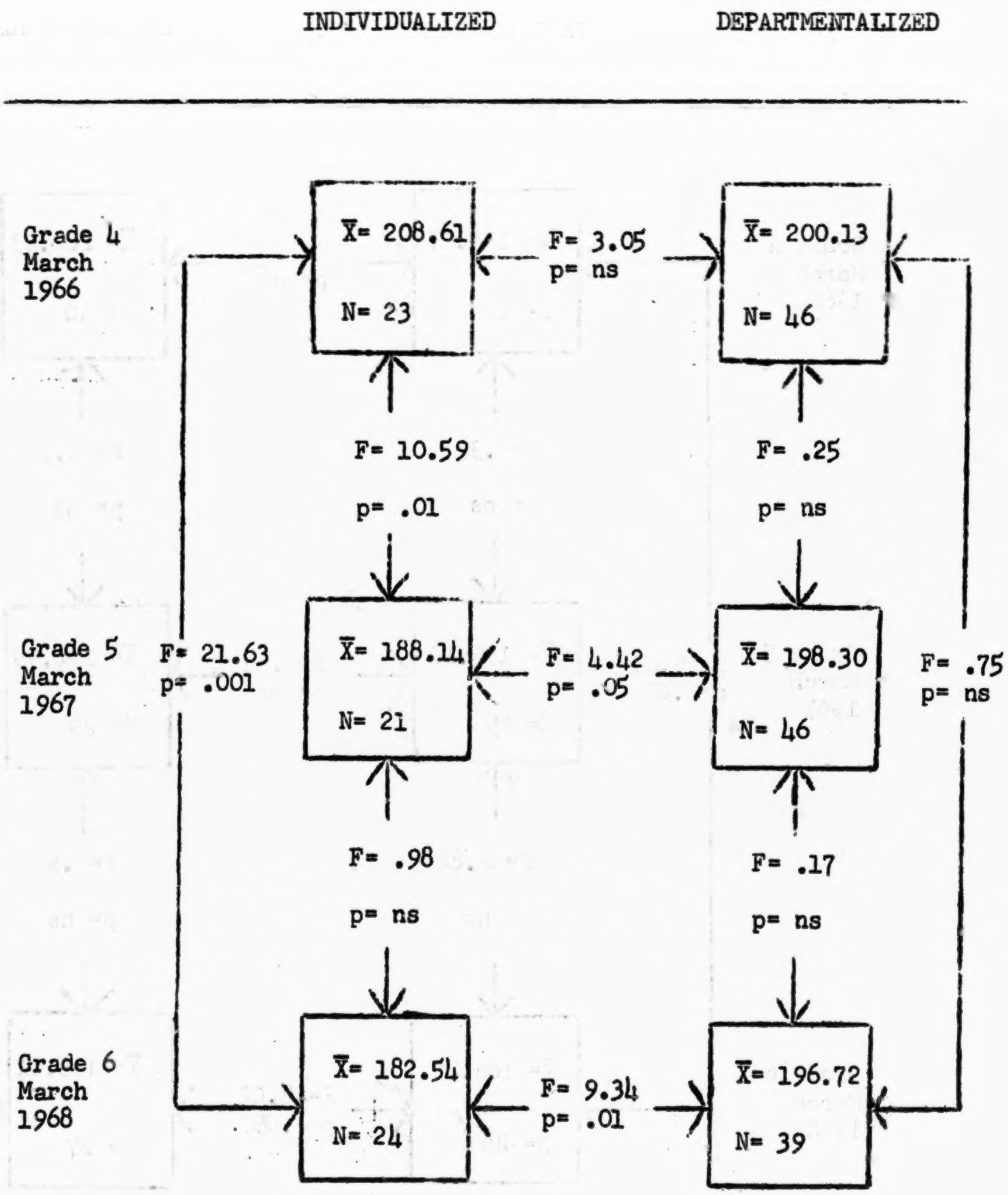

INDIVIDUALIZED
DEPARTMENTALIZED
Grade 4 March 1966
X̄= 208.61 N= 23
F= 3.05 p= ns
X̄= 200.13 N= 46
F= 10.59 p= .01
F= .25 p= ns
Grade 5 March 1967
F= 21.63 p= .001
X̄= 188.14 N= 21
F= 4.42 p= .05
X̄= 198.30 N= 46
F= .75 p= ns
F= .98 p= ns
F= .17 p= ns
Grade 6 March 1968
X̄= 182.54 N= 24
F= 9.34 p= .01
X̄= 196.72 N= 39

FIGURE A-29

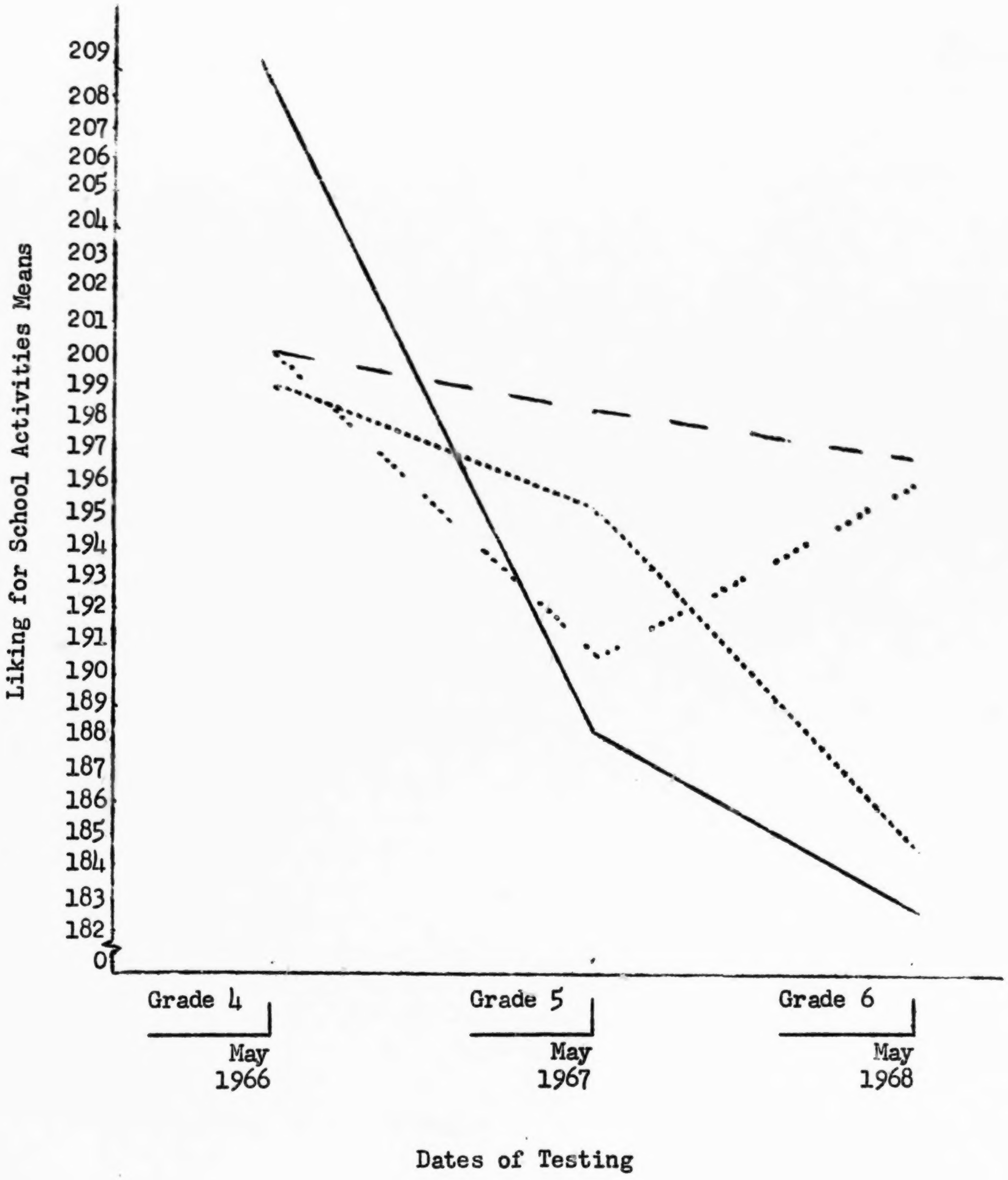


Figure A-29 Sears Liking for School Activities Mean Scores for Students Enrolled in Two Forms of Classroom Organization Implemented During Grades Five and Six

.... Boys - Individualized ————————Girls - Individualized
....Boys - Departmentalized _ _ _ _Girls - Departmentalized

APPENDIX B

STATISTICAL TABLES - ITBS DATA

TABLE B-1 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADE FOUR BOYS IN A DEPARTMENTALIZED CLASSROOM AND GRADE FOUR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION.

Measures	Sources of Variance	df	SS	MS	F
Vocabulary	Between	1	.012	.012	.01
	Within	58	54.95	.95	.01
	Total	59	54.97		
Reading	Between	1	1.94	1.94	1.20
	Within	58	90.11	1.55	
	Total	59	92.05		
Language	Between	1	.63	.63	.44
	Within	57	82.99	1.46	
	Total	58	83.62		
Work Study	Between	1	1.63	1.63	1.18
	Within	57	78.71	1.38	
	Total	58	80.34		
Arithmetic	Between	1	.29	.29	.31
	Within	57	54.33	.95	
	Total	58	54.62		
Composite	Between	1	.64	.64	.68
	Within	57	53.88	.95	
	Total	58	54.52		

*P <.05
**P <.01
***P <.001

TABLE B-2 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADE FOUR GIRLS IN A DEPARTMENTALIZED CLASSROOM AND GRADE FOUR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION.

Measures	Sources of Variance	df	SS	MS	F
	Between	1	.21	.21	.23
Vocabulary	within	66	60.81	.92	
	Total	67	61.03		
	Between	1	3.92	3.92	3.40
Reading	Within	66	76.19	1.15	
	Total	67	80.11		
	Between	1	.00030	.00030	.00
Language	Within	65	47.19	.73	
	Total	66	47.19		
	Between	1	.86	.86	1.14
Work Study	Within	65	48.88	.75	
	Total	66	49.74		
	Between	1	.36	.36	.48
Arithmetic	Within	63	46.51	.74	
	Total	64	46.86		
	Between	1	.25	.25	.37
Composite	within	63	42.15	.67	
	Total	64	42.40		

$^{*}P < .05$

$^{**}P < .01$

$^{***}P < .001$

TABLE B-3 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADE FIVE BOYS IN A DEPARTMENTALIZED CLASSROOM AND GRADE FIVE BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION.

Measures	Sources of Variance	df	SS	MS	F
Vocabulary	Between	1	.064	.064	.04
	Within	57	93.30	1.64	
	Total	58	93.37		
Reading	Between	1	.30	.30	.16
	Within	57	105.17	1.85	
	Total	58	105.48		
Language	Between	1	.011	.011	.01
	Within	58	121.03	2.09	
	Total	59	121.04		
Work Study	Between	1	.13	.13	.10
	Within	58	80.57	1.39	
	Total	59	80.70		
Arithmetic	Between	1	.45	.45	.37
	Within	58	70.76	1.22	
	Total	59	71.21		
Composite	Between	1	.019	.019	.02
	Within	57	73.93	1.30	
	Total	58	73.94		

*$p < .05$
**$p < .01$
***$p < .001$

TABLE B-4 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADE FIVE GIRLS IN A DEPARTMENTALIZED CLASSROOM AND GRADE FIVE GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION.

Measures	Sources of Variance	df	SS	MS	F
Vocabulary	Between	1	.34	.34	.34
	Within	68	68.27	1.00	
	Total	69	68.61		
Reading	Between	1	.0051	.0051	.00
	Within	68	135.01	1.99	
	Total	69	135.02		
Language	Between	1	3.65	3.65	3.60
	Within	68	68.92	1.01	
	Total	69	72.57		
Work Study	Between	1	.015	.015	.02
	Within	66	65.44	.99	
	Total	67	65.45		
Arithmetic	Between	1	.61	.61	.71
	Within	67	57.07	.85	
	Total	68	57.67		
Composite	Between	1	.13	.13	.14
	Within	66	59.98	.91	
	Total	67	60.11		

*$P < .05$
**$P < .01$
***$P < .001$

TABLE B-5 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADE SIX BOYS IN A DEPARTMENTALIZED CLASSROOM AND GRADE SIX BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION.

Measures	Sources of Variance	df	SS	MS	F
	Between	1	.12	.12	.07
Vocabulary	Within	58	107.01	1.84	
	Total	59	107.13		
	Between	1	.52	.52	.26
Reading	Within	58	115.67	1.99	
	Total	59	116.19		
	Between	1	6.99	6.99	2.73
Language	Within	58	148.32	2.56	
	Total	59	155.31		
	Between	1	.78	.78	.33
Work Study	Within	58	135.46	2.34	
	Total	59	136.24		
	Between	1	.71	.71	.42
Arithmetic	Within	57	96.81	1.70	
	Total	58	97.52		
	Between	1	.19	.19	.12
Composite	Within	57	93.26	1.64	
	Total	58	93.45		

$^{*}p < .05$
$^{**}p < .01$
$^{***}p < .001$

TABLE B-6 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADE SIX GIRLS IN A DEPARTMENTALIZED CLASSROOM AND GRADE SIX GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION.

Measures	Sources of Variance	df	SS	MS	F
	Between	1	.0054	.0054	.01
Vocabulary	Within	66	66.90	1.01	
	Total	67	66.90		
	Between	1	1.39	1.39	.94
Reading	Within	66	97.53	1.48	
	Total	67	98.93		
	Between	1	1.25	1.25	1.16
Language	Within	66	71.40	1.08	
	Total	67	72.65		
	Between	1	.37	.37	.30
Work Study	Within	66	81.26	1.23	
	Total	67	81.63		
	Between	1	.14	.14	.11
Arithmetic	Within	66	84.97	1.29	
	Total	67	85.11		
	Between	1	.065	.065	.07
Composite	Within	66	59.88	.91	
	Total	67	59.95		

*P < .05
**P < .01
***P < .001

TABLE B-7 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FOUR AND FIVE FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
	Between	1	22.22	22.22	15.65***
Vocabulary	Within	56	79.51	1.42	
	Total	57	101.73		
	Between	1	15.31	15.31	8.84**
Reading	Within	56	97.00	1.73	
	Total	57	112.31		
	Between	1	27.52	27.52	13.91***
Language	Within	55	108.83	1.98	
	Total	56	136.36		
	Between	1	23.61	23.61	13.86***
Work Study	Within	55	93.72	1.70	
	Total	56	117.33		
	Between	1	10.58	10.58	8.13**
Arithmetic	Within	55	71.58	1.30	
	Total	56	82.16		
	Between	1	19.34	19.34	15.59***
Composite	Within	55	68.24	1.24	
	Total	56	87.58		

*P < .05
**P < .01
***P < .001

TABLE B-8 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FOUR AND FIVE FOR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
	Between	1	9.81	9.81	11.28**
Vocabulary	Within	46	40.00	8.70	
	Total	47	49.81		
	Between	1	12.30	12.30	8.92**
Reading	Within	46	63.41	1.38	
	Total	47	75.71		
	Between	1	28.68	28.68	54.04***
Language	Within	46	24.41	.53	
	Total	47	53.08		
	Between	1	17.40	17.40	20.14***
Work Study	Within	46	39.74	.86	
	Total	47	57.14		
	Between	1	14.74	14.74	18.06***
Arithmetic	Within	46	37.55	.82	
	Total	47	52.29		
	Between	1	15.99	15.99	23.88***
Composite	Within	46	30.79	.67	
	Total	47	46.78		

*P< .05
**P< .01
***P< .001

TABLE B-9 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FOUR AND FIVE FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
	Between	1	21.97	21.97	18.86***
Vocabulary	Within	59	68.74	1.17	
	Total	60	90.72		
	Between	1	4.19	4.19	2.52
Reading	Within	59	98.28	1.67	
	Total	60	102.47		
	Between	1	20.67	20.67	13.03***
Language	Within	60	95.19	1.59	
	Total	61	115.86		
	Between	1	11.50	11.50	10.52**
Work Study	Within	60	65.57	1.09	
	Total	61	77.06		
	Between	1	12.38	12.38	13.88**
Arithmetic	Within	60	53.51	.89	
	Total	61	65.89		
	Between	1	12.92	12.92	12.80**
Composite	Within	59	59.56	1.01	
	Total	60	72.48		

*P < .05
**P < .01
***P < .001

TABLE B-10 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FOUR AND FIVE FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
Vocabulary	Between	1	30.73	30.73	30.35***
	Within	88	89.08	1.01	
	Total	89	119.81		
Reading	Between	1	6.27	6.27	3.73
	Within	88	147.79	1.68	
	Total	89	154.06		
Language	Between	1	25.43	25.43	24.12***
	Within	87	91.70	1.05	
	Total	88	117.13		
Work Study	Between	1	21.72	21.72	24.76***
	Within	85	74.57	.88	
	Total	86	96.30		
Arithmetic	Between	1	12.32	12.32	15.68***
	Within	84	66.02	.79	
	Total	85	78.34		
Composite	Between	1	18.60	18.60	21.64***
	Within	83	71.34	.86	
	Total	84	89.94		

*P < .05
**P < .01
***P < .001

TABLE B-11 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FIVE AND SIX FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
Vocabulary	Between	1	5.65	5.65	2.74
	Within	56	115.46	2.06	
	Total	57	121.11		
Reading	Between	1	13.32	13.32	6.08*
	Within	56	122.75	2.19	
	Total	57	136.08		
Language	Between	1	7.82	7.82	3.07
	Within	56	142.58	2.55	
	Total	57	150.40		
Work Study	Between	1	10.86	10.86	4.80*
	Within	56	126.77	2.26	
	Total	57	137.64		
Arithmetic	Between	1	25.37	25.37	14.40***
	Within	55	96.89	1.76	
	Total	56	122.25		
Composite	Between	1	13.62	13.62	8.30**
	Within	55	90.26	1.64	
	Total	56	103.88		

*P < .05
**P < .01
***P < .001

TABLE B-12 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FIVE AND SIX FOR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
	Between	1	15.64	15.64	15.90***
Vocabulary	Within	46	45.24	.98	
	Total	47	60.88		
	Between	1	18.88	18.88	12.40**
Reading	Within	46	70.01	1.52	
	Total	47	88.89		
	Between	1	10.64	10.64	15.49***
Language	Within	46	31.60	.69	
	Total	47	42.24		
	Between	1	19.00	19.00	21.16***
Work Study	Within	46	41.30	.90	
	Total	47	60.30		
	Between	1	16.22	16.22	17.93***
Arithmetic	Within	46	41.60	.90	
	Total	47	57.81		
	Between	1	15.87	15.87	21.16***
Composite	Within	46	34.50	.75	
	Total	47	50.37		

*P < .05
**P < .01
***P < .001

TABLE B-13 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FIVE AND SIX FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
	Between	1	9.28	9.28	6.45*
Vocabulary	Within	59	84.85	1.44	
	Total	60	94.13		
	Between	1	25.31	25.31	15.22***
Reading	Within	59	98.09	1.66	
	Total	60	123.40		
	Between	1	32.37	32.37	15.32***
Language	Within	60	126.77	2.11	
	Total	61	159.14		
	Between	1	21.84	21.84	14.68***
Work Study	Within	60	89.25	1.49	
	Total	61	111.09		
	Between	1	13.75	13.75	11.67**
Arithmetic	Within	60	70.68	1.18	
	Total	61	84.43		
	Between	1	19.39	19.39	14.87***
Composite	Within	59	76.92	1.30	
	Total	60	96.31		

*P < .05
**P < .01
***P < .001

TABLE B-14 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FIVE AND SIX FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
Vocabulary	Between	1	23.07	23.07	22.58***
	Within	88	89.93	1.02	
	Total	89	113.01		
Reading	Between	1	53.04	53.04	28.72***
	Within	88	162.53	1.85	
	Total	89	215.57		
Language	Between	1	65.52	65.52	53.03***
	Within	88	108.73	1.24	
	Total	89	174.25		
Work Study	Between	1	25.32	25.32	20.66***
	Within	86	105.40	1.23	
	Total	87	130.71		
Arithmetic	Between	1	35.63	35.63	30.86***
	Within	87	100.44	1.15	
	Total	88	136.06		
Composite	Between	1	37.44	37.44	37.72***
	Within	86	85.36	.99	
	Total	87	122.81		

*P < .05
**P < .01
***P < .001

TABLE B-15 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FOUR AND SIX FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
	Between	1	50.28	50.28	32.89***
Vocabulary	Within	56	85.61	1.53	
	Total	57	135.89		
	Between	1	57.20	57.20	24.65***
Reading	Within	56	129.95	2.32	
	Total	57	187.15		
	Between	1	64.30	64.30	31.43***
Language	Within	55	112.52	2.05	
	Total	56	176.82		
	Between	1	66.03	66.03	27.07***
Work Study	Within	55	134.15	2.44	
	Total	56	200.18		
	Between	1	67.54	67.54	41.42***
Arithmetic	Within	54	88.05	1.63	
	Total	55	155.59		
	Between	1	64.29	64.29	43.22***
Composite	Within	54	80.32	1.49	
	Total	55	144.60		

*P $<.05$
**P $<.01$
***P $<.001$

TABLE B-16 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FOUR AND SIX FOR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
	Between	1	50.23	50.23	56.05***
Vocabulary	Within	46	41.22	.90	
	Total	47	91.45		
	Between	1	61.65	61.65	44.90***
Reading	Within	46	63.16	1.37	
	Total	47	124.81		
	Between	1	74.25	74.25	105.74***
Language	Within	46	32.30	7.02	
	Total	47	106.55		
	Between	1	72.77	72.77	89.87***
Work Study	Within	46	37.25	.81	
	Total	47	110.01		
	Between	1	61.88	61.88	69.99***
Arithmetic	Within	46	40.67	.88	
	Total	47	102.55		
	Between	1	63.71	63.71	94.10***
Composite	Within	46	31.14	.68	
	Total	47	94.85		

*P <.05
**P <.01
***P <.001

TABLE B-17 ONE WAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FOUR AND SIX FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
Vocabulary	Between	1	60.81	60.81	47.78***
	Within	60	76.35	1.27	
	Total	61	137.16		
Reading	Between	1	50.94	50.94	40.31***
	Within	60	75.82	1.26	
	Total	61	126.77		
Language	Between	1	104.78	104.78	52.92***
	Within	60	118.80	1.98	
	Total	61	223.58		
Work Study	Between	1	65.04	65.04	48.76***
	Within	60	80.03	1.33	
	Total	61	145.06		
Arithmetic	Between	1	52.22	52.22	49.67***
	Within	60	63.09	1.05	
	Total	61	115.30		
Composite	Between	1	65.04	65.04	58.40***
	Within	60	66.82	1.11	
	Total	61	131.85		

*P < .05
**P < .01
***P < .001

TABLE B-18 ONEWAY ANALYSES OF VARIANCE OF ITBS SCORES BETWEEN GRADES FOUR AND SIX FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Measures	Sources of Variance	df	SS	MS	F
	Between	1	104.73	104.73	104.14 ***
Vocabulary	Within	86	86.49	1.01	
	Total	87	191.22		
	Between	1	93.69	93.69	72.88 ***
Reading	Within	86	110.56	1.29	
	Total	87	204.25		
	Between	1	167.65	167.65	165.14 ***
Language	Within	85	86.29	1.02	
	Total	86	253.94		
	Between	1	93.38	93.38	85.45 ***
Work Study	Within	85	92.90	1.09	
	Total	86	186.28		
	Between	1	86.89	86.89	79.42 ***
Arithmetic	Within	83	90.81	1.09	
	Total	84	177.69		
	Between	1	106.56	106.56	124.75 ***
Composite	Within	83	70.89	.85	
	Total	84	177.45		

*P < .05
**P < .01
***P < .001

APPENDIX C

SELF CONCEPT DATA

TABLE C-1 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN DEPARTMENTALIZED AND INDIVIDUALIZED FORMS OF CLASSROOM ORGANIZATION FOR BOYS IN GRADE FOUR

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	32.02	32.02	.50
	Within	57	3580.63	62.81	
	Total	58	3612.65		
Mental Ability	Between	1	76.45	76.45	1.36
	Within	57	3187.17	55.91	
	Total	58	3263.62		
Social Relations: Boys	Between	1	14.81	14.81	.26
	Within	57	3201.73	56.17	
	Total	58	3216.54		
Social Relations: Girls	Between	1	985.40	985.40	7.61**
	Within	57	7383.17	129.53	
	Total	58	8368.58		
Physical Appearance	Between	1	21.15	21.15	.41
	Within	57	2933.73	51.47	
	Total	58	2954.88		

*P < .05
**P < .01
***P < .001

TABLE C-2 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN DEPARTMENTALIZED AND INDIVIDUALIZED FORMS OF CLASSROOM ORGANIZATION FOR GIRLS IN GRADE FOUR

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	7.64	7.64	.14
	Within	69	3665.24	53.11	
	Total	70	3672.88		
Mental Ability	Between	1	6.64	6.64	.13
	Within	69	3508.60	50.84	
	Total	70	3515.24		
Social Relations: Boys	Between	1	.64	.64	.01
	Within	69	3546.94	51.40	
	Total	70	3547.58		
Social Relations: Girls	Between	1	1.80	1.80	.05
	Within	69	2451.98	35.54	
	Total	70	2453.78		
Physical Appearance	Between	1	82.47	82.47	1.48
	Within	69	3848.69	55.78	
	Total	70	3931.16		

*P < .05
**P < .01
***P < .001

TABLE C-2 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN DEPARTMENTALIZED AND INDIVIDUALIZED FORMS OF CLASSROOM ORGANIZATION FOR GIRLS IN GRADE FOUR

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	7.64	7.64	.14
	Within	69	3665.24	53.11	
	Total	70	3672.88		
Mental Ability	Between	1	6.64	6.64	.13
	Within	69	3508.60	50.84	
	Total	70	3515.24		
Social Relations: Boys	Between	1	.64	.64	.01
	Within	69	3546.94	51.40	
	Total	70	3547.58		
Social Relations: Girls	Between	1	1.80	1.80	.05
	Within	69	2451.98	35.54	
	Total	70	2453.78		
Physical Appearance	Between	1	82.47	82.47	1.48
	Within	69	3848.69	55.78	
	Total	70	3931.16		

*P < .05
**P < .01
***P < .001

TABLE C-2 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	151.48	151.48	2.68
	Within	69	3906.50	56.62	
	Total	70	4057.98		
Independence: School Work	Between	1	1.38	1.38	.04
	Within	69	2630.57	38.12	
	Total	70	2631.95		
Social Virtues	Between	1	3.63	3.63	.13
	Within	69	1930.77	27.98	
	Total	70	1934.40		
Happy Qualities	Between	1	34.41	34.41	1.19
	Within	69	2002.19	29.02	
	Total	70	2036.60		
School Work	Between	1	6.84	6.84	.22
	Within	69	2167.07	31.40	
	Total	70	2173.91		
Total	Between	1	989.00	989.00	.41
	Within	69	167850.00	2432.60	
	Total	70	168839.00		

*P < .05
**P < .01
***P < .001

TABLE C-3 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN DEPARTMENTALIZED AND INDIVIDUALIZED FORMS OF CLASSROOM ORGANIZATION FOR BOYS IN GRADE FIVE

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	66.45	66.45	1.50
	Within	54	2393.68	44.33	
	Total	55	2460.13		
Mental Ability	Between	1	97.79	97.79	2.46
	Within	54	2147.57	39.77	
	Total	55	2245.36		
Social Relations: Boys	Between	1	248.64	248.64	4.85*
	Within	54	2767.29	51.25	
	Total	55	3015.93		
Social Relations: Girls	Between	1	182.16	182.16	1.43
	Within	54	6895.82	127.70	
	Total	55	7077.98		
Physical Appearance	Between	1	2.57	2.57	.06
	Within	54	2308.86	42.76	
	Total	55	2311.43		

*P <.05
**P <.01
***P <.001

TABLE C-3 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	9.45	9.45	.14
	Within	54	3528.11	65.34	
	Total	55	3537.55		
Independence: School Work	Between	1	2.16	2.16	.05
	Within	54	2330.39	43.16	
	Total	55	2332.55		
Social Virtues	Between	1	12.07	12.07	.44
	Within	54	1469.36	27.21	
	Total	55	1481.43		
Happy Qualities	Between	1	7.14	7.14	.22
	Within	54	1760.86	32.61	
	Total	55	1768.00		
School Work	Between	1	20.64	20.64	.44
	Within	54	2527.57	46.81	
	Total	55	2548.22		
Total	Between	1	1116.00	1116.00	.40
	Within	54	149107.80	2761.26	
	Total	55	150223.80		

*P < .05
**P < .01
***P < .001

TABLE C-4 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN DEPARTMENTALIZED AND INDIVIDUALIZED FORMS OF CLASSROOM ORGANIZATION FOR GIRLS IN GRADE FIVE

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	43.34	43.34	1.07
	Within	64	2603.14	40.67	
	Total	65	2646.49		
Mental Ability	Between	1	45.53	45.53	1.18
	Within	64	2463.50	38.49	
	Total	65	2509.03		
Social Relations: Boys	Between	1	145.14	145.14	2.43
	Within	64	3824.13	59.75	
	Total	65	3969.27		
Social Relations: Girls	Between	1	389.46	389.46	9.83 **
	Within	64	2536.30	39.63	
	Total	65	2925.76		
Physical Appearance	Between	1	27.43	27.43	.74
	Within	64	2379.67	37.18	
	Total	65	2407.09		

*P < .05
**P < .01
***P < .001

TABLE C-4 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	2.68	2.68	.05
	Within	64	3113.99	48.66	
	Total	65	3116.67		
Independence: School Work	Between	1	192.31	192.31	5.20*
	Within	64	2366.01	36.97	
	Total	65	2558.32		
Social Virtues	Between	1	13.28	13.28	.55
	Within	64	1556.98	24.33	
	Total	65	1570.26		
Happy Qualities	Between	1	17.31	17.31	.67
	Within	64	1664.95	26.01	
	Total	65	1682.26		
School Work	Between	1	247.82	247.82	7.09**
	Within	64	2235.93	34.94	
	Total	65	2483.76		
Total	Between	1	7712.20	7712.20	3.71
	Within	64	132946.80	2077.29	
	Total	65	140659.00		

*P < .05
**P < .01
***P < .001

TABLE C-5 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN DEPARTMENTALIZED AND INDIVIDUALIZED FORMS OF CLASSROOM ORGANIZATION FOR BOYS IN GRADE SIX

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	135.33	135.33	2.14
	Within	54	3418.67	63.31	
	Total	55	3554.00		
Mental Ability	Between	1	39.44	39.44	.93
	Within	54	2279.55	42.21	
	Total	55	2318.98		
Social Relations: Boys	Between	1	124.88	124.88	2.28
	Within	54	2952.55	54.68	
	Total	55	3077.43		
Social Relations: Girls	Between	1	43.81	43.81	.45
	Within	54	5262.69	97.46	
	Total	55	5306.50		
Physical Appearance	Between	1	50.09	50.09	.99
	Within	54	2721.84	50.40	
	Total	55	2771.93		

*P < .05
**P < .01
***P < .001

TABLE C-5 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relation-ships	Between	1	97.91	97.91	1.81
	Within	54	2918.09	54.04	
	Total	55	3016.00		
Independence: School Work	Between	1	97.91	97.91	2.29
	Within	54	2306.09	42.71	
	Total	55	2404.00		
Social Virtues	Between	1	31.33	31.33	.91
	Within	54	1856.39	34.38	
	Total	55	1887.72		
Happy Qualities	Between	1	49.42	49.42	1.27
	Within	54	2102.01	38.93	
	Total	55	2151.43		
School Work	Between	1	209.66	209.66	4.84
	Within	54	2341.20	43.36	
	Total	55	2550.86		
	Between	1	8042.40	8042.40	2.20
	Within	54	196997.30	3648.10	
	Total	55	205039.70		

*P < .05
**P < .01
***P < .001

TABLE C-6 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN DEPARTMENTALIZED AND INDIVIDUALIZED FORMS OF CLASSROOM ORGANIZATION FOR GIRLS IN GRADE SIX

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	25.78	25.78	.45
	Within	61	3475.93	56.98	
	Total	62	3501.72		
Mental Ability	Between	1	116.05	116.05	3.10
	Within	61	2285.03	37.46	
	Total	62	2401.08		
Social Relations: Boys	Between	1	.68	.68	.02
	Within	61	2661.73	43.63	
	Total	62	2262.41		
Social Relations: Girls	Between	1	73.72	73.72	1.99
	Within	61	2259.55	37.04	
	Total	62	2333.27		
Physical Appearance	Between	1	95.01	95.01	2.33
	Within	61	2492.70	40.86	
	Total	62	2587.72		

*P< .05
**P< .01
***P< .001

TABLE C-6 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	6.41	6.41	.13
	Within	61	3092.86	50.70	
	Total	62	3099.27		
Independence: School Work	Between	1	272.01	272.01	8.75
	Within	61	1895.70	31.08	
	Total	62	2167.72		
Social Virtues	Between	1	86.08	86.08	3.44
	Within	61	1525.86	25.01	
	Total	62	1611.94		
Happy Qualities	Between	1	189.07	189.07	8.16**
	Within	61	1412.93	23.16	
	Total	62	1602.00		
School Work	Between	1	288.14	288.14	8.32**
	Within	61	2111.58	34.62	
	Total	62	2399.72		
Total	Between	1	8843.50	8843.50	3.88
	Within	61	138923.10	2277.43	
	Total	62	147766.60		

*P < .05
**P < .01
***P < .001

TABLE C-7 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND FIVE FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	8.17	8.17	.13
	Within	55	3443.72	62.61	
	Total	56	3451.90		
Mental Ability	Between	1	.13	.13	.00
	Within	55	2990.92	54.38	
	Total	56	2991.05		
Social Relations: Boys	Between	1	57.12	57.12	.85
	Within	55	3703.72	67.34	
	Total	56	3760.84		
Social Relations: Girls	Between	1	386.04	386.04	2.46
	Within	55	8634.28	156.99	
	Total	56	9020.32		
Physical Appearance	Between	1	12.35	12.35	.23
	Within	55	2959.86	53.82	
	Total	56	2972.21		

*P < .05
**P < .01
***P < .001

TABLE C-7 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	58.11	58.11	.62
	Within	55	5174.03	94.07	
	Total	56	5232.14		
Independence: School Work	Between	1	78.57	78.57	1.32
	Within	55	3267.99	59.41	
	Total	56	3346.56		
Social Virtues	Between	1	18.73	18.73	.44
	Within	55	2355.94	42.84	
	Total	56	2374.67		
Happy Qualities	Between	1	14.11	14.11	.31
	Within	55	2480.88	45.11	
	Total	56	2494.98		
School Work	Between	1	209.78	209.78	4.05*
	Within	55	2850.89	51.83	
	Total	56	3060.67		
Total	Between	1	1738.60	1738.60	.45
	Within	55	211103.60	3838.25	
	Total	56	212842.20		

*P < .05
**P < .01
***P < .001

TABLE C-8 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND FIVE FOR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	66.15	66.15	1.57
	Within	45	1890.79	42.02	
	Total	46	1956.94		
Mental Ability	Between	1	103.80	103.80	2.16
	Within	45	2166.84	48.15	
	Total	46	2270.64		
Social Relations: Boys	Between	1	38.39	38.39	.60
	Within	45	2857.31	63.50	
	Total	46	2895.70		
Social Relations: Girls	Between	1	196.87	196.87	4.62
	Within	45	1917.77	42.62	
	Total	46	2114.64		
Physical Appearance	Between	1	145.96	145.96	3.56
	Within	45	1847.31	41.05	
	Total	46	1993.28		

*P < .05
**P < .01
***P < .001

TABLE C-8 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	125.30	125.30	2.95
	Within	45	1914.10	42.54	
	Total	46	2039.41		
Independence: School Work	Between	1	142.68	142.68	3.54
	Within	45	1814.55	40.32	
	Total	46	1957.24		
Social Virtues	Between	1	34.57	34.57	1.20
	Within	45	1299.26	28.87	
	Total	46	1333.83		
Happy Qualities	Between	1	51.51	51.51	1.56
	Within	45	1485.77	33.02	
	Total	46	1537.28		
School Work	Between	1	208.18	208.18	6.01*
	within	45	1558.29	34.63	
	Total	46	1766.47		
Total	Between	1	11958.50	11958.50	5.62*
	Within	45	95819.30	2129.32	
	Total	46	107777.80		

*P < .05
**P < .01
***P < 001

TABLE C-9 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND FIVE FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	.040	.040	.00
	Within	56	2530.59	45.19	
	Total	57	2530.63		
Mental Ability	Between	1	3.09	3.09	.07
	Within	56	2343.83	41.85	
	Total	57	2346.91		
Social Relations: Boys	Between	1	21.19	21.19	.52
	Within	56	2265.30	40.45	
	Total	57	2286.49		
Social Relations: Girls	Between	1	5.90	5.90	.06
	Within	56	5644.73	100.80	
	Total	57	5650.62		
Physical Appearance	Between	1	7.00	7.00	.17
	Within	56	2282.73	40.76	
	Total	57	2289.73		

*P < .05
**P < .01
***P < .001

TABLE C-9 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	2.93	2.93	.06
	Within	56	2677.55	47.81	
	Total	57	2680.48		
Independence: School Work	Between	1	25.20	25.20	.46
	Within	56	3076.68	54.94	
	Total	57	3101.88		
Social Virtues	Between	1	1.41	1.41	.05
	Within	56	1161.58	28.78	
	Total	57	1612.98		
Happy Qualities	Between	1	3.28	3.28	.11
	Within	56	1634.10	29.18	
	Total	57	1637.38		
School Work	Between	1	37.30	37.30	.70
	Within	56	2969.33	53.02	
	Total	57	3006.62		
Total	Between	1	105.10	105.10	.04
	Within	56	158650.70	2833.05	
	Total	57	158755.80		

*P <.05
**P <.01
***P <.001

TABLE C-10 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND FIVE FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	0.00	0.00	.00
	Within	88	4377.60	49.75	
	Total	89	4377.60		
Mental Ability	Between	1	7.64	7.64	.18
	Within	88	3805.26	43.24	
	Total	89	3812.90		
Social Relations: Boys	Between	1	27.36	27.36	.53
	Within	88	4513.76	51.29	
	Total	89	4541.13		
Social Relations: Girls	Between	1	9.99	9.99	.29
	Within	88	3070.50	34.89	
	Total	89	3080.49		
Physical Appearance	Between	1	.25	.25	.01
	Within	88	4381.04	49.78	
	Total	89	4381.29		

*P < .05
**P < .01
***P < .001

TABLE C-10 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	8.11	8.11	.14
	Within	88	5106.39	58.03	
	Total	89	5114.50		
Independence: School Work	Between	1	.87	.87	.02
	Within	88	3182.03	36.16	
	Total	89	3182.90		
Social Virtues	Between	1	1.97	1.97	.08
	Within	88	2188.49	24.87	
	Total	89	2190.46		
Happy Qualities	Between	1	4.59	4.59	.19
	Within	88	2181.37	24.79	
	Total	89	2185.96		
School Work	Between	1	5.90	5.90	.18
	Within	88	2844.73	32.33	
	Total	89	2850.63		
Total	Between	1	40.00	40.00	.02
	Within	88	204977.00	2329.28	
	Total	89	205017.00		

*P < .05
**P < .01
***P < .001

TABLE C-11 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONEPT SCORES BETWEEN GRADES FIVE AND SIX FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	1526.10	1528.10	.26
	Within	55	3258.96	59.25	
	Total	56	3274.25		
Mental Ability	Between	1	59.39	59.39	1.29
	Within	55	2518.85	45.80	
	Total	56	2578.25		
Social Relations: Boys	Between	1	2.47	2.47	.04
	Within	55	3552.41	64.59	
	Total	56	3554.88		
Social Relations: Girls	Between	1	53.18	53.18	.36
	Within	55	8037.66	146.13	
	Total	56	8090.84		
Physical Appearance	Between	1	29.88	29.88	.60
	Within	55	2717.17	49.40	
	Total	56	2747.05		

*P < .05
**P < .01
***P < .001

TABLE C-11 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	1.24	1.24	.07
	Within	55	3918.65	71.25	
	Total	56	3919.90		
Independence: School Work	Between	1	.41	.41	.01
	Within	55	2652.47	48.27	
	Total	56	2652.88		
Social Virtues	Between	1	4.20	4.20	.12
	Within	55	1898.00	34.51	
	Total	56	1902.21		
Happy Qualities	Between	1	.80	.80	.02
	Within	55	2402.26	43.68	
	Total	56	2403.05		
School Work	Between	1	2.74	2.74	.06
	Within	55	2639.51	47.99	
	Total	56	2642.25		
Total	Between	1	25.10	25.10	.01
	Within	55	201456.80	33662.85	
	Total	56	201481.90		

*P < .05
**P < .01
***P < .001

TABLE C-12 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONEPT SCORES BETWEEN GRADES FIVE AND SIX FOR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	20.94	20.94	.62
	Within	45	1529.92	34.00	
	Total	46	1550.85		
Mental Ability	Between	1	.00	.00	.00
	Within	45	1728.55	38.41	
	Total	46	1728.55		
Social Relations: Boys	Between	1	14.20	14.20	.23
	Within	45	2828.44	62.85	
	Total	46	2842.64		
Social Relations: Girls	Between	1	2.59	2.59	.07
	Within	45	1664.39	36.99	
	Total	46	1666.98		
Physical Appearance	Between	1	14.20	14.20	.41
	Within	45	1564.44	34.77	
	Total	46	1578.64		

*P < .05
**P < .01
***P < .001

TABLE C-12 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	
Teacher Relationships	Between	1	20.37	20.37	.51
	Within	45	1814.44	40.32	
	Total	46	1834.81		
Independence: School Work	Between	1	2.63	2.63	.08
	Within	45	1465.84	32.57	
	Total	46	1468.47		
Social Virtues	Between	1	19.38	19.38	.70
	Within	45	1247.26	27.72	
	Total	46	1266.64		
Happy Qualities	Between	1	61.10	61.10	2.13
	Within	45	1292.39	28.72	
	Total	46	1353.49		
School Work	Between	1	2.49	2.49	.05
	Within	45	1954.79	43.44	
	Total	46	1957.28		
Total	Between	1	188.50	188.50	.09
	Within	45	90646.80	2014.37	
	Total	46	90835.30		

*P <.05
**P <.01
***P <.001

TABLE C-13 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN GRADES FIVE AND SIX FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	.15	.15	.00
	Within	53	2553.39	48.18	
	Total	54	2553.53		
Mental Ability	Between	1	71.48	71.48	1.99
	Within	53	1908.27	36.01	
	Total	54	1979.75		
Social Relations: Boys	Between	1	9,01	9.01	.22
	Within	53	2167.43	40.89	
	Total	54	2176.44		
Social Relations: Girls	Between	1	.12	.12	.00
	Within	53	4120.86	77.75	
	Total	54	4120.98		
Physical Appearance	Between	1	.00	.00	.00
	Within	53	2313.53	43.65	
	Total	54	2313.53		

*P < .05
**P < .01
***P < .001

TABLE C-13 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	61.80	61.80	1.30
	Within	53	2527.55	47.70	
	Total	54	2589.35		
Independence: School Work	Between	1	59.73	59.73	1.60
	Within	53	1984.01	37.43	
	Total	54	2043 .75		
Social Virtues	Between	1	48.70	48.70	1.81
	Within	53	1427.74	26.94	
	Total	54	1476.44		
Happy Qualities	Between	1	27.02	27.02	.98
	Within	53	1460.62	27.56	
	Total	54	1487.64		
School Work	Between	1	67.72	67.72	1.61
	Within	53	2229.27	42.06	
	Total	54	2296.98		
Total	Between	1	2588.70	2588.70	.95
	Within	53	144648.30	2729.21	
	Total	54	147237.00		

*P < .05
**P < .01
***P < .001

TABLE C-14 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN GRADES FIVE AND SIX FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	60.40	60.40	1.06
	Within	80	4549.17	56.86	
	Total	81	4609.57		
Mental Ability	Between	1	23.24	23.24	.62
	Within	80	3019.98	37.75	
	Total	81	3043.22		
Social Relations: Boys	Between	1	66.10	66.10	1.45
	Within	80	3657.42	45.72	
	Total	81	3723.53		
Social Relations: Girls	Between	1	117.92	117.92	3.01
	Within	80	3131.46	39.14	
	Total	81	3249.38		
Physical Appearance	Between	1	.11	.11	.00
	Within	80	3307.94	41.35	
	Total	81	3308.05		

*P < .05
**P < .01
***P < .001

TABLE C-14 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	1.16	1.16	.02
	Within	80	4392.41	54.91	
	Total	81	4393.57		
Independence: School Work	Between	1	1.03	1.03	.03
	Within	80	2795.87	34.95	
	Total	81	2796.90		
Social Virtues	Between	1	.67	.67	.03
	Within	80	1835.58	22.94	
	Total	81	1836.25		
Happy Qualities	Between	1	.92	.92	.04
	Within	80	1785.49	22.32	
	Total	81	1786.41		
School Work	Between	1	12.99	12.99	.43
	Within	80	2392.73	29.91	
	Total	81	2405.72		
Total	Between	1	107.00	107.00	.05
	Within	80	181224.00	2265.30	
	Total	81	181331.00		

*P < .05
**P < .01
***P < .001

TABLE C-15 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND SIX FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	46.62	46.62	.63
	Within	56	4124.76	73.66	
	Total	57	4171.38		
Mental Ability	Between	1	66.28	66.28	1.21
	Within	56	3060.35	54.65	
	Total	57	3126.62		
Social Relations: Boys	Between	1	36.48	36.48	.54
	Within	56	3780.42	67.51	
	Total	57	3816.90		
Social Relations: Girls	Between	1	738.78	738.78	5.61*
	Within	56	7378.00	131.75	
	Total	57	8116.78		
Physical Appearance	Between	1	82.09	82.09	1.42
	Within	56	3245.04	57.95	
	Total	57	3327.12		

*P $< .05$
**P $< .01$
***P $< .001$

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TABLE C-15 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relation-ships	Between	1	43.10	43.10	.50
	Within	56	4786.97	85.48	
	Total	57	4830.07		
Independence: School Work	Between	1	91.88	91.88	1.60
	Within	56	3207.11	57.27	
	Total	57	3298.98		
Social Virtues	Between	1	41.40	41.40	.87
	Within	56	2663.45	47.56	
	Total	57	2704.85		
Happy Qualities	Between	1	8.34	8.34	.18
	Within	56	2608.28	46.58	
	Total	57	2616.62		
School Work	Between	1	265.10	265.10	5.51 *
	Within	56	2694.97	48.12	
	Total	57	2960.07		
Total	Between	1	2221.70	2221.70	.51
	Within	56	244434.80	4364.91	
	Total	57	246656.50		

*P < .05
**P < .01
***P < .001

TABLE C-16 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	252.08	252.08	7.15*
	Within	46	1621.58	35.25	
	Total	47	1873.67		
Independence: School Work	Between	1	188.02	188.02	6.15*
	Within	46	1405.96	30.56	
	Total	47	1593.98		
Social Virtues	Between	1	108.00	108.00	5.18*
	Within	46	959.92	20.87	
	Total	47	1067.92		
Happy Qualities	Between	1	229.69	229.69	6.87*
	Within	46	1537.29	33.42	
	Total	47	1766.98		
School Work	Between	1	168.75	168.75	4.71*
	Within	46	1647.17	35.81	
	Total	47	1815.92		
Total	Between	1	15480.10	15480.10	7.65 **
	Within	46	93111.30	2024.16	
	Total	47	108591.40		

*P < .05
**P < .01
***P < .001

TABLE C-17 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND SIX FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	.34	.34	.01
	Within	55	2874.54	52.26	
	Total	56	2874.88		
Mental Ability	Between	1	46.99	46.99	1.07
	Within	55	2406.38	43.75	
	Total	56	2453.37		
Social Relations: Boys	Between	1	2.27	2.27	.05
	Within	55	2373.87	43.16	
	Total	56	2376.14		
Social Relations: Girls	Between	1	7.64	7.64	.08
	Within	55	5267.87	95.78	
	Total	56	5275.51		
Physical Appearance	Between	1	7.19	7.19	.16
	Within	55	2410.53	43.83	
	Total	56	2417.72		

*P < .05
**P < .01
***P < .001

TABLE C-17 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	39.65	39.65	.89
	Within	55	2454.60	44.63	
	Total	56	2494.25		
Independence: School Work	Between	1	164.63	164.63	2.91
	Within	55	3113.26	56.60	
	Total	56	3277.90		
Social Virtues	Between	1	35.04	35.04	1.14
	Within	55	1691.10	30.75	
	Total	56	1726.14		
Happy Qualities	Between	1	12.18	12.18	.36
	Within	55	1847.85	33.60	
	Total	56	1860.04		
School Work	Between	1	5.37	5.37	.10
	Within	55	2938.88	53.43	
	Total	56	2944.25		
Total	Between	1	1727.30	1727.30	.55
	Within	55	173209.00	3149.25	
	Total	56	174936.30		

*P< .05
**P< .01
***P< .001

TABLE C-18 ONE WAY ANALYSES OF VARIANCE OF SEARS SELF-CONCEPT SCORES BETWEEN FOUR AND SIX GRADES FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Physical Ability	Between	1	61.44	61.44	1.01
	Within	84	5106.38	60.79	
	Total	85	5167.82		
Mental Ability	Between	1	4.96	4.96	.11
	Within	84	3732.68	44.44	
	Total	85	3737.64		
Social Relations: Boys	Between	1	10.26	10.26	.25
	Within	84	3505.88	41.74	
	Total	85	3516.14		
Social Relations: Girls	Between	1	64.11	64.11	1.72
	Within	84	3126.23	37.22	
	Total	85	3190.34		
Physical Appearance	Between	1	.71	.71	.01
	Within	84	4720.60	56.20	
	Total	85	4721.31		

*P< .05
**P< .01
***P< .001

TABLE C-18 (continued)

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Teacher Relationships	Between	1	14.98	14.98	.23
	Within	84	5377.78	64.02	
	Total	85	5392.76		
Independence: School Work	Between	1	.01	.01	.00
	Within	84	3120.32	37.15	
	Total	85	3120.33		
Social Virtues	Between	1	.28	.28	.01
	Within	84	2496.71	29.72	
	Total	85	2496.99		
Happy Qualities	Between	1	9.40	9.40	.42
	Within	84	1877.83	22.36	
	Total	85	1887.23		
School Work	Between	1	36.57	36.57	1.17
	Within	84	2631.49	31.33	
	Total	85	2668.06		
Total	Between	1	280.00	280.00	.11
	Within	84	213662.00	2543.60	
	Total	85	213942.00		

*$P < .05$
**$P < .01$
***$P < .001$

TABLE C-19 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN INDIVIDUALIZED AND DEPARTMENTALIZED FORMS OF CLASSROOM ORGANIZATION FOR BOYS IN GRADE FOUR

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	27.64	27.64	.68
	Within	58	2354.01	40.59	
	Total	59	2381.65		
Mental Attitudes	Between	1	374.59	374.59	1.74
	Within	58	12496.00	215.45	
	Total	59	12870.59		
Moral Attitudes	Between	1	109.29	109.29	1.21
	Within	58	5243.65	90.41	
	Total	59	5352.94		
Human Relations	Between	1	51.64	51.64	.21
	Within	58	14029.35	241.86	
	Total	59	14080.99		
Total	Between	1	1816.90	1816.90	.97
	Within	58	108207.10	1865.64	
	Total	59	10024.00		

*P < .05
**P < .01
***P < .001

TABLE C-20 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN INDIVIDUALIZED AND DEPARTMENTALIZED FORMS OF CLASSROOM ORGANIZATION FOR GIRLS IN GRADE FOUR

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	49.30	49.30	1.42
	Within	69	2391.58	34.66	
	Total	70	2440.87		
Mental Attitudes	Between	1	1.96	1.96	.01
	Within	69	12423.96	180.06	
	Total	70	12425.92		
Moral Attitudes	Between	1	65.25	65.25	.83
	Within	69	5395.91	78.20	
	Total	70	5461.16		
Human Relations	Between	1	132.86	132.86	.68
	Within	69	13579.12	19679.88	
	Total	70	13711.98		
Total	Between	1	785.30	785.30	.54
	Within	69	101117.90	1465.48	
	Total	70	101903.20		

*P < .05
**P < .01
***P < .001

TABLE C-21 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN INDIVIDUALIZED AND DEPARTMENTALIZED FORMS OF CLASSROOM ORGANIZATION FOR BOYS IN GRADE FIVE

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	55.35	55.35	1.73
	Within	53	1692.18	31.93	
	Total	54	1747.53		
Mental Attitudes	Between	1	926.57	926.57	5.78 *
	Within	53	8496.78	160.32	
	Total	54	9423.35		
Moral Attitudes	Between	1	78.35	78.35	.99
	Within	53	4204.38	79.33	
	Total	54	4282.73		
Human Relations	Between	1	279.82	279.82	1.44
	Within	53	10286.11	194.08	
	Total	54	10565.93		
Total	Between	1	4027.00	4027.00	2.69
	Within	53	79284.70	1495.94	
	Total	54	83311.70		

*P < .05
**P < .01
***P < .001

TABLE C-22. ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN INDIVIDUALIZED AND DEPARTMENTALIZED FORMS OF CLASSROOM ORGANIZATION FOR GIRLS IN GRADE FIVE

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	16.57	16.57	.84
	Within	66	1296.96	19.65	
	Total	67	1313.53		
Mental Attitudes	Between	1	.38	.38	.00
	Within	66	8597.86	130.27	
	Total	67	8598.24		
Moral Attitudes	Between	1	23.60	23.60	.49
	Within	66	3164.21	47.94	
	Total	67	3187.81		
Human Relations	Between	1	207.45	207.45	1.45
	Within	66	9427.19	142.84	
	Total	67	9634.64		
Total	Between	1	515.90	515.90	.53
	Within	66	64730.70	980.77	
	Total	67	65246.60		

*P < .05
**P < .01
***P < .001

TABLE C-23 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN INDIVIDUALIZED AND DEPARTMENTALIZED FORMS OF CLASSROOM ORGANIZATION FOR BOYS IN GRADE SIX

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	3.50	3.50	.12
	Within	54	1579.00	29.24	
	Total	55	1582.50		
Mental Attitudes	Between	1	100.44	100.44	.55
	Within	54	9899.40	183.32	
	Total	55	9999.84		
Moral Attitudes	Between	1	7.14	7.14	.09
	Within	54	4135.36	76.58	
	Total	55	4142.50		
Human Relations	Between	1	12.07	12.07	.06
	Within	54	11675.86	216.22	
	Total	55	11687.93		
Total	Between	1	204.40	204.40	.13
	Within	54	85018.60	1574.42	
	Total	55	85223.00		

*P < .05
**P < .01
***P < .001

TABLE C-24 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN INDIVIDUALIZED AND DEPARTMENTALIZED FORMS OF CLASSROOM ORGANIZATION FOR GIRLS IN GRADE SIX

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	244.78	244.78	10.83**
	Within	65	1468.63	22.59	
	Total	66	1713.40		
Mental Attitudes	Between	1	425.16	425.16	3.83
	Within	65	7219.71	111.07	
	Total	66	7644.87		
Moral Attitudes	Between	1	418.29	418.29	7.40 **
	Within	65	3671.89	56.49	
	Total	66	4090.18		
Human Relations	Between	1	1230.50	1230.50	7.52 **
	Within	65	10631.62	163.56	
	Total	66	11862.12		
Total	Between	1	8426.60	8426.60	7.94 **
	Within	65	68969.70	1061.07	
	Total	66	77396.30		

*P < .05
**P < .01
***P < .001

TABLE C-25 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND FIVE FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	1.88	1.88	.04
	Within	54	2345.25	43.43	
	Total	55	2347.13		
Mental Attitudes	Between	1	17.26	17.26	.08
	Within	54	11824.67	218.98	
	Total	55	11841.93		
Moral Attitudes	Between	1	56.50	56.50	.62
	Within	54	4912.86	90.98	
	Total	55	4969.36		
Human Relations	Between	1	59.19	59.19	.23
	Within	54	13851.80	256.51	
	Total	55	13910.99		
Total	Between	1	28.50	28.50	.01
	Within	54	106689.50	1975.73	
	Total	55	106718.00		

*P < .05
**P < .01
***P < .001

TABLE C-26 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND FIVE FOR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	8.19	8.19	.36
	Within	45	1036.92	23.04	
	Total	46	1045.11		
Mental Attitudes	Between	1	81.27	81.27	.51
	Within	45	7234.61	160.77	
	Total	46	7315.88		
Moral Attitudes	Between	1	17.10	17.10	.23
	Within	45	3283.46	72.97	
	Total	46	3300.56		
Human Relations	Between	1	91.17	91.17	.54
	Within	45	7668.45	170.41	
	Total	46	7759.62		
Total	Between	1	653.50	653.50	.53
	Within	45	55592.00	1235.38	
	Total	46	56245.50		

*P $< .05$
**P $< .01$
***P $< .001$

TABLE C-27 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND FIVE FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	15.16	15.16	.51
	Within	57	1700.95	29.84	
	Total	58	1716.10		
Mental Attitudes	Between	1	274.74	274.74	1.71
	Within	57	9168.11	160.84	
	Total	58	9442.85		
Moral Attitudes	Between	1	42.36	42.36	.53
	Within	57	4535.17	79.56	
	Total	58	4577.53		
Human Relations	Between	1	5.26	5.26	.03
	Within	57	10463.66	183.57	
	Total	58	10468.92		
Total	Between	1	835.10	835.10	.59
	Within	57	80802.30	1417.58	
	Total	58	81637.40		

*P < .05
**P < .01
***P < .001

TABLE C-28 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND FIVE FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	55.46	55.46	1.88
	Within	90	2651.62	29.46	
	Total	91	2707.08		
Mental Attitudes	Between	1	226.65	226.65	1.48
	Within	90	13787.21	153.19	
	Total	91	14013.86		
Moral Attitudes	Between	1	90.82	90.82	1.55
	Within	90	5276.66	58.63	
	Total	91	5367.48		
Human Relations	Between	1	90.70	90.70	.53
	Within	90	15337.86	170.42	
	Total	91	15428.56		
Total	Between	1	1726.80	1726.80	1.41
	Within	90	110256.60	1225.07	
	Total	91	111983.40		

$*P < .05$
$**P < .01$
$***P < .001$

TABLE C-29 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND SIX FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	34.30	34.30	.88
	Within	55	2133.17	38.78	
	Total	56	2167.47		
Mental Attitudes	Between	1	240.31	240.31	1.11
	Within	55	11930.68	216.92	
	Total	56	12170.99		
Moral Attitudes	Between	1	108.12	108.12	1.25
	Within	55	4776.13	86.84	
	Total	56	4884.25		
Human Relations	Between	1	1.71	1.71	.01
	Within	55	13821.66	251.30	
	Total	56	13823.37		
Total	Between	1	1093.50	1093.50	.58
	Within	55	104568.20	1901.24	
	Total	56	105661.70		

*P < .05
**P < .01
***P < .001

TABLE C-30 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND SIX FOR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	88.02	88.02	3.86
	Within	46	1047.79	22.78	
	Total	47	1135.81		
Mental Attitudes	Between	1	574.08	574.08	4.36*
	Within	46	6059.84	131.74	
	Total	47	6633.92		
Moral Attitudes	Between	1	280.33	280.33	3.52
	Within	46	3660.34	79.57	
	Total	47	3940.67		
Human Relations	Between	1	630.74	630.74	3.80
	Within	46	7643.18	166.16	
	Total	47	8273.92		
Total	Between	1	5655.20	5655.20	4.67*
	Within	46	55670.50	1210.23	
	Total	47	61325.70		

*P < .05
**P < .01
***P < .001

TABLE C-31 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND SIX FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	1.38	1.38	.04
	Within	57	1799.84	31.58	
	Total	58	1801.22		
Mental Attitudes	Between	1	46.91	46.91	.26
	Within	57	10464.72	183.59	
	Total	58	10511.63		
Moral Attitudes	Between	1	8.68	8.68	.11
	Within	57	4602.88	80.75	
	Total	58	4611.56		
Human Relations	Between	1	4.96	4.96	.02
	Within	57	11883.55	208.48	
	Total	58	11888.51		
Total	Between	1	36.40	36.40	.02
	Within		88657.50	1555.39	
	Total		88693.90		

*P < .05
**P < .01
***P < .001

TABLE C-32 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FOUR AND SIX FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	5.25	5.25	.16
	Within	88	2812.41	31.96	
	Total	89	2817.66		
Mental Attitudes	Between	1	91.06	91.06	.59
	Within	88	13583.83	154.36	
	Total	89	13674.89		
Moral Attitudes	Between	1	61.03	61.03	.99
	Within	88	5407.46	61.45	
	Total	89	5468.49		
Human Relations	Between	1	32.54	32.54	.17
	Within	88	16567.56	188.27	
	Total	89	16600.10		
Total	Between	1	642.60	642.60	.49
	Within	88	114417.10	1300.19	
	Total	89	115059.70		

*P < .05
**P < .01
***P < .001

TABLE C-33 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FIVE AND SIX FOR BOYS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	19.31	19.31	.53
	Within	53	1924.08	36.30	
	Total	54	1943.38		
Mental Attitudes	Between	1	123.38	123.38	.67
	Within	53	9795.35	184.82	
	Total	54	9918.73		
Moral Attitudes	Between	1	7.62	7.62	.09
	Within	53	4450.09	83.96	
	Total	54	4457.71		
Human Relations	Between	1	79.49	79.49	.37
	Within	53	11441.86	215.88	
	Total	54	11521.35		
Total	Between	1	738.80	738.80	.43
	Within	53	90117.10	1700.32	
	Total	54	90855.90		

*P < .05
**P < .01
***P < .001

TABLE C-34 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FIVE AND SIX FOR GIRLS IN AN INDIVIDUALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	41.21	41.21	2.56
	Within	45	724.79	16.11	
	Total	46	766.00		
Mental Attitudes	Between	1	215.77	215.77	1.57
	Within	45	6166.45	137.03	
	Total	46	6382.22		
Moral Attitudes	Between	1	154.48	154.48	2.58
	Within	45	2694.80	59.88	
	Total	46	2849.28		
Human Relations	Between	1	234.01	234.01	1.64
	Within	45	6423.95	142.75	
	Total	46	6657.96		
Total	Between	1	2385.00	2385.00	2.33
	Within	45	46046.50	1023.26	
	Total	46	48431.50		

*$P < .05$
**$P < .01$
***$P < .001$

TABLE C-35 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FIVE AND SIX FOR BOYS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	24.45	24.45	.98
	Within	54	1347.11	24.95	
	Total	55	1371.55		
Mental Attitudes	Between	1	90.01	90.01	.57
	Within	54	8600.83	159.27	
	Total	55	8690.84		
Moral Attitudes	Betweem	1	12.07	12.07	.17
	Within	54	3889.65	72.03	
	Total	55	3901.72		
Human Relations	Between	1	19.45	19.45	.10
	Within	54	10520.11	194.82	
	Total	55	10539.56		
Total	Between	1	498.10	498.10	.36
	Within	54	74186.20	1373.882	
	Total	55	74684.30		

*P < .05
**P < .01
***P < .001

TABLE C-36 ONE WAY ANALYSES OF VARIANCE OF SPAULDING SELF-CONCEPT SCORES BETWEEN GRADES FIVE AND SIX FOR GIRLS IN A DEPARTMENTALIZED FORM OF CLASSROOM ORGANIZATION

Self-Concept Measures	Sources of Variance	df	SS	MS	F
Work Habits	Between	1	25.16	25.16	1.06
	Within	86	2040.79	23.73	
	Total	87	2065.96		
Mental Attitudes	Between	1	27.87	27.87	.25
	Within	86	9651.12		
	Total	87	9678.99		
Moral Attitudes	Between	1	2.52	2.52	.05
	Within	86	4141.30	48.16	
	Total	87	4143.82		
Human Relations	Between	1	13.46	13.46	.09
	Within	86	13634.86	158.55	
	Total	87	13648.32		
Total	Between	1	241.90	241.90	.24
	Within	86	87653.90	1019.23	
	Total	87	87895.80		

*P < .05
**P < .01
***P < .001

APPENDIX D

TEACHER OPINION QUESTIONNAIRE DATA

TABLE D-1

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE: THE PUPIL AND THE PROJECT PROGRAM

Statement	N	Percent Agree	Percent Disagree	P
1. Most pupils at your grade level seem to be mature enough to be able to profit from a project type program.	16	18.8	71.2	.02
2. Most pupils seem to like the individualized-contract form of classroom more than the conventional classroom.	16	12.5	87.5	.01
3. The elementary curriculum should be largely limited to basic and academically respectable subjects instead of construction projects and social activities.	16	18.8	71.2	.02
4. Most pupils seem to profit more from the individualized-contract form of classroom.	16	56.3	43.7	ns
5. The low ability child profits most from being in an individualized-contract form of classroom.	16	43.7	56.3	ns
6. The high ability child profits most from being in an individualized-contract form of classroom.	16	87.5	12.5	.01
7. For those children who appear to have certain psychological needs of maintaining a close relationship with an adult, the individualized-contract program is very desirable.	16	50	50	ns
8. It is sometimes just too difficult to keep an accurate account of each child's progress in an individualized program.	16	50	50	ns
9. The teacher in the project school gets to know each child as personally, if not more so, as does the teacher in the conventional classroom.	16	56.3	43.7	ns
10. The low achiever probably is not working hard enough and applying himself.	16	50	50	ns

TABLE D-1 (continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE: THE PUPIL AND THE PROJECT PROGRAM

Statement	N	Percent Agree	Percent Disagree	P
11. Children appear to form more closely "knit" social groups within the project type program than they do in the conventional program.	16	56.3	43.7	ns
12. Boys appear to profit more, academically, from a project type program than girls.	15	13.3	86.7	.01
13. Boys appear to have a better attitude towards school in a project type program as compared to the conventional type program.	16	62.5	37.5	ns
14. Girls appear to have a better attitude towards school in a project type program as compared to the conventional type program.	15	60	40	ns
15. Because children work independently for a major portion of the time, they occasionally learn things erroneously; for example, mispronunciations of words, incorrect concepts about abstract type science or social studies topics	16	81.3	18.7	.02
16. Some children appear to be more secure when allowed to work independently as compared to where they would have to work in a classroom group situation.	16	75	25	.05
17. Some children appear to be more "nervous" or uneasy because they do not have an adult directing their work as in the conventional classroom.	16	56.3	43.7	ns

TABLE D-1 (continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE: INSTRUCTIONAL ASPECTS - THE CURRICULUM

Statement	N	Percent Agree	Percent Disagree	P
18. There is plenty, or at least, sufficient, opportunity in the project program for children to work in small groups on committee-type projects.	16	81.3	18.7	.02
19. There is plenty, or at least sufficient opportunity in the project program for children to be creative in writing stories and reports of their own choosing.	16	93.8	6.2	.001
20. The project school curriculum provides a good balance between skills, understandings, and appreciations.	17	75	25	.05
21. The project school curriculum places too great an emphasis on developing skills.	16	31.3	68.7	ns
22. The project school curriculum should provide more opportunity for students to actually use some of the concepts that they've encountered in social studies or science contracts.	15	73.3	26.7	ns
23. The project program provides adequate opportunity for students to do creative art or craft-type projects--such as painting, murals, construct dioramas, construct models, etc.	16	87.5	12.5	.01
24. The project program provides enough time for class discussions, that is, the entire class discussing a single topic at a particular time.	16	75	25	.05
25. It is wiser to obtain specific teaching objectives from published curriculum guides, published text books, and so on, than it is to burden teachers to write their own.	16	25	75	.05

TABLE D-1 (continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE: INSTRUCTIONAL ASPECTS - THE CONTRACT

Statement	N	Percent Agree	Percent Disagree	P
26. Teacher-led presentations are necessary only when a child, or a group of children, appear to be having difficulty in coping with a task called for by a contract.	16	12.5	87.5	.01
27. Contracts are based too much on existing textbooks and other published materials.	16	56.3	43.7	ns
28. Too much time is required of the teacher in preparing contracts.	15	73.3	26.7	ns
29. Once a contract is written, it can be used for years to come.	16	25	75	.05
30. Contracts are really open-ended--that is, they provide for sufficient enrichment activities to challenge the highly motivated student.	16	75	25	.05
31. Some children seem to do well in completing the work called for by the contract but yet do poorly on the test.	16	68.8	31.2	ns
32. Some children seem to do well on both the contract assignment and on the test but yet seem to have little understanding of what they have actually studied.	16	62.5	37.5	ns
33. Most children are eager to finish one contract and start on the next.	15	86.7	13.3	.01
34. Some children tend to cheat on parts of their written assignments called for by the contract.	15	73.3	26.7	ns
35. The project type program seems to equate learning with the completing of a written contract--that is, there is too great an emphasis on the written assignment.	15	40	60	ns

TABLE D-1 (continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE: INSTRUCTIONAL ASPECTS - THE CONTRACT

Statement	N	Percent Agree	Percent Disagree	P
36. Some children have a very difficult time reading the written contract.	15	86.7	13.3	.01
37. Some children, though they can read the contract easily, have a difficult time understanding what is meant by the directions.	15	60	40	ns
38. The types of knowledges and skills called for by the contract are appropriate learnings for the child at your grade level.	16	93.8	6.2	.001
39. The caption which appears on each contract and which spells out the specific learning objective (and level of proficiency required) is important and meaningful to the child.	14	71.4	18.6	ns
40. Children should be given more opportunity to write some of their own contracts.	14	92.9	7.1	.01
41. Working from a contract helps the child become more independent.	15	73.3	26.7	ns

TABLE D-1 (continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE:
INSTRUCTIONAL ASPECTS - PROGRAMED MATERIALS

Statement	N	Percent Agree	Percent Disagree	P
42. Programed materials, both the machines and the workbooks, appear to be as effective, if not more so, than teacher-led presentations for the same amount and type of material.	15	60	40	ns
43. Students seem to be adequately motivated as they work in programed type materials.	16	62.5	37.5	ns
44. Some students at times become confused and frustrated as they work in programed materials.	15	86.7	13.3	.01
45. While the principle of programed instruction is educationally and psychologically sound, the effectiveness of the present programs is limited due to the fact that the programs that are presently available are of poor quality.	15	40	60	ns
46. Elementary age students need too much teacher guidance and assistance to make their independent study in programed materials an effective classroom procedure.	15	26.7	73.3	ns
47. Programed materials are too detailed (or have too many steps per concept) and as a consequence, students lose interest.	15	26.7	73.3	ns
48. The subject matter of the programed materials that are available are not really appropriate for the things generally taught at your grade level.	15	13.3	86.7	.01

TABLE D-1 (continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE:
THE TEACHER AND THE PROJECT PROGRAM

Statement	N	Percent Agree	Percent Disagree	P
53. In terms of work load, energy, effort, and time expended, the project school demands too much of a teacher.	16	87.5	12.5	.01
54. New teachers who have not had previous experience in a project school type of program will not necessarily have any major difficulty adapting their teaching style to this type of program.	15	60	40	ns
55. The project school allows a teacher to have a much easier day in conducting instruction than in a conventional program.	15	26.7	73.3	ns
56. The teacher's role, because of the duties involved, in the project school is really elevated to a much more important position than is the role of the teacher in the conventional classroom.	15	40	60	ns
57. In order for the program to be effective, the teacher needs to be assisted by someone (such as a teacher aide or student teacher) who can provide the major amount of individual help to the students as the student works independently at his desk.	15	53.3	46.7	ns
58. The team leader should be a person who, among the team members, has attained the highest degree or highest level of education.	15	33.3	66.7	ns
59. The teacher within a team should be responsible to the team leader directly rather than to the building principal.	15	33.3	66.7	ns
60. The team leader should be responsible directly to the central administration and not necessarily directly responsible to the building principal.	15	6.7	93.3	.00

TABLE D-1 (continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE:
THE TEACHER AND THE PROJECT PROGRAM

Statement	N	Percent Agree	Percent Disagree	P
61. The teacher within a team should be responsible directly to the building principal rather than directly to the team leader.	16	31.3	68.7	ns
62. The project teacher's major responsibilities should be largely limited to preparing contracts, testing children, and checking with other project teachers on the progress of individual students.	15	20	80	ns
63. The building principal should take a more active part in assuming the development responsibility for the development and the operation of the project program.	15	80	20	.02
64. The personal and professional relationships between project team teachers and other teachers in the building who teach in conventional classrooms have been weakened through feelings of envy, jealousy, and other such feelings.	15	60	40	ns
65. The classroom teacher should have a role in formulating what should be taught to children at his or her particular grade level.	16	93.8	6.2	.001
66. The personal and professional relationships between project team teachers are probably stronger than those relations that exist among the conventional classroom teachers who work in any single elementary building.	15	86.7	13.3	.01

TABLE D-1 (continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE: CHANGING TO A DIFFERENT TYPE OF SCHOOL PROGRAM

Statement	N	Percent Agree	Percent Disagree	P
67. If your school was asked to adopt a different type of program or organization than what it has even now, you would be willing to participate in such a new program.	14	85.7	14.3	.01
68. Knowing the attitude of the other teachers in your building, most of the teachers would also be willing to participate.	15	60	40	ns
69. Teachers should be expected to participate in a project type program whether they volunteer for the program or not.	16	6.3	93.7	.00
70. The teachers would want a year-long period of inservice training before such a program was started.	15	80	20	.02
71. The teachers would want a chance to plan a program that would be especially tailored for their school rather than adopting "wholesale" the individualized-contract plan now followed in some of the project schools.	14	85.7	14.3	.01
72. Most teachers in the conventional classroom are already doing a considerable amount of individualization.	15	60	40	ns
73. If teachers now in the conventionalized classroom were supplied with some of the more modern record-keeping forms and additional materials, they, too, could do as good a job at individualized instruction as what occurs in the project schools.	14	42.9	57.1	ns
74. The individualized-contract plan has not yet been proved to be a better method than the type of teaching that occurs in the conventional classroom.	15	66.7	33.3	ns

TABLE D-1(continued)

CHI-SQUARE ANALYSIS OF RESPONSES TO TEACHER QUESTIONNAIRE: CHANGING TO A DIFFERENT TYPE OF SCHOOL PROGRAM

Statement	N	Percent Agree	Percent Disagree	P
75. Teachers in the conventional classroom buildings would like to see instruction improved but this does not necessarily mean the adoption of an individualized-contract form of organization.	16	87.5	12.5	.01
76. Teachers would have many new ideas to suggest on how instruction might be improved in their present buildings.	15	93.3	6.7	.001
77. The present self-contained or departmentalized type programs have at least been proved to be an educationally sound and a psychologically safe type of program for children.	14	42.9	57.1	ns
78. The classroom instruction that occurs in the conventional classroom should be improved considerably.	13	92.3	7.7	.01

APPENDIX E

SAMPLE CONTRACTS

LA 75-6

Name________________
Grade Five
Date Issued__________
Date Due____________

CONTENT CLASSIFICATION

Identification and recall of sequence of events.

PURPOSE

To engage students in exercises that will require the use of sequence of information.

CRITERION PERFORMANCE

Given a reading selection and a list of steps pertaining to the selection arranged in random order, the student is able to arrange the material in correct sequential order. (90% accuracy)

SAMPLE TEST SITUATION

Four year old Tom awoke at six o'clock one sunny morning. He immediately arose and dressed himself. Then he went to the refrigerator and found an orange and a glass of milk. After that he went for a short walk around the block.

Number in correct order the events as they happened in the paragraph.

_____a. Tom took an orange and milk from the refrigerator.
_____b. He arose early one morning.
_____c. He went for a short walk.
_____d. He dressed himself.

TAXONOMY CATEGORY

Comprehension

RESOURCES

_____a. *Sky Lines* text

"Stormy Place" 37-49, worksheet.
"Dream Come True" 66-76, worksheet.
"Buffalo Stampede" 132-137, worksheet.
"A Bathroom Skeleton" 142-147, worksheet.

_____b. *Sky Lines* workbook, pp. 12, 21, 37.

_____c. SRA Reading Laboratory

_____d. *Spectrum, Reading Comprehension*

Yellow Book pp. 96-105

_____e. *Reading Round Table*, "That Amazing Machine," p. 47

_____f. Teacher-led presentation.

SCIENCE UNIVERSE GRADE SIX
A-23

NAME__________________
DATE ISSUED____________
DATE DUE______________

CONTENT CLASSIFICATION

The Universe - An introduction to the terms lunar and solar eclipse.

PURPOSE

To learn about lunar and solar eclipse.

CRITERION PERFORMANCE

Given the terms lunar and solar eclipse, the student will be able to diagram and explain each.

SAMPLE TEST SITUATION

Diagram and explain a lunar and solar eclipse.

SOLAR ECLIPSE LUNAR ECLIPSE

TAXONOMY CATEGORY

Knowledge

RESOURCES

__________The student will attend a T.L.P.

__________The student will read pp. 246-248 in the text.

__________The student will see at least three of the following film strips - No. 24, 29, 39, and 66.

__________The student will perform the experiment on pp. 247-248.

__________The student will present a S.L.P. to illustrate a solar and lunar eclipse.

__________The student will do number 4 in "Things to Do" and number 6 in "Things to Find Out" at the end of the chapter.

SS 75-10

NAME____________________
DATE ISSUED_______________
DATE DUE__________________

CONTENT CLASSIFICATION

II. Early United States History

D. The Revolutionary war

PURPOSE

To recognize the difficulties and problems of the colonists in gaining their independence.

CRITERION PERFORMANCE

Given a list of statements concerning the Revolutionary War, the student is able to determine whether the statements are true or false. (90% accuracy)

SAMPLE TEST SITUATION

If the statement is true, place a + (plus sign) in the column. If the statement is false, place an 0 in the column preceeding the statement.

_____The French played an important part in the American victory at Yorktown.

_____The Declaration of Independence ended the war.

TAXONOMY CATEGORY

Comprehension

RESOURCES

__________A. Read pages 91-97 in the text The Changing New World.

__________B. Work Sheet #75-10.

__________C. Read pages 113-120 in the text In These United States.

__________D. Teacher-led presentation.

	CONTROL GROUP		EXPERIMENTAL GROUP		
	Boys	Girls	Boys	Girls	
1961-66	Kindergarten through Grade 4 Self-contained		Kindergarten through Grade 4 Self-contained		*
1966-67	Grade 5 Departmentalized		Grade 5 Individualized-contract		**
1967-68	Grade 6 Departmentalized		Grade 6 Individualized-contract		***

*Data collected, Spring, 1966
**Data collected, Spring, 1967
***Data collected, Spring, 1968

Figure 1. Illustration of the Longitudinal Design.